

KV-21XSD/21XSTD

RM-673

SERVICE MANUAL

AEP Model

KV-21XSD

Chassis No. SCC-B14D-A

KV-21XSTD

Chassis No. SCC-B14C-A



AE-1 CHASSIS

Note: The service manuals for RM-673 have been issued separately.

MODELS OF THE SAME SERIES

KV-21XSD/21XSTD	
KV-25XSD/25XSTD	

SPECIFICATIONS

Television system	CCIR B, G and H
Color system	PAL/SECAM
Stereo system	German two-carrier system
Channel coverage	VHF channels E2-S20 UHF channels E21-E69
Picture tube	Trinitron tube 100-degree deflection Approx. 54.4 cm (21 inches) (Approx. 51 cm picture measured diagonally)
Audio output	10W + 10W (music power)
Inputs	21-pin EURO-AV connector, CENELEC Standard
Outputs	Headphones jack: stereo minijack External speaker terminals: 2-pin DIN
Power consumption	78Wh: KV21XSD 82Wh: KV21XSTD
Dimensions	Approx. 517x480x469 mm (w/h/d)
Weight	Approx. 25 kg
Supplied accessories	RM-673 Remote Commander (1) IEC designation R6 batteries (2)

Design and specifications are subject change without notice.

TRINITRON® COLOR TV
SONY®



CTV

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SAFETY-RELATED COMPONENT WARNING !!

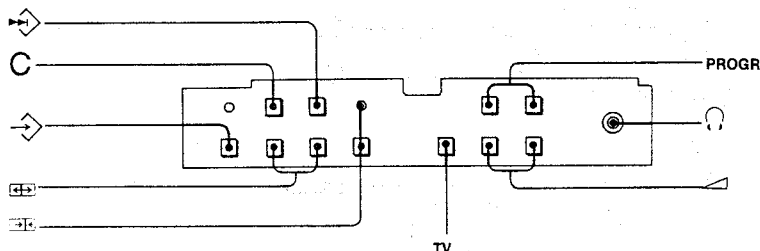
COMPONENTS IDENTIFIED BY SHADING AND MARK  ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

SECTION 1 GENERAL

1-1. FIRST OF ALL

- 1** Connect the ANTENNA to the  socket on the rear of the set. This socket receives the standard 75-ohm aerial plug.
- 2** Plug in the set.
- 3** Tune in the available channels.

Use the buttons inside the front panel. To open the panel, press the centre.



To tune in all channels automatically:

- 1 Press  (PRESET)
- 2 Press PROGR to select the program position from which tuning is to start.
- 3 Press  (AUTO PROGRAMING)

The channels will be tuned in and memorized in consecutive positions, beginning from the program position selected in step 2. When tuning has been completed, the set returns to the position where tuning began.

To tune in a channel in any desired program position.

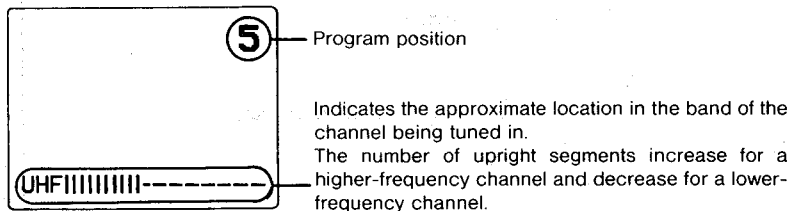
(e.g. the position with the same number as the channel):

- 1 Press  (PRESET)
- 2 Press PROGR to select the desired program position.
- 3 Press C (CLEAR)
- 4 Press  (SEARCH) repeatedly until the desired channel appears.
- 5 Repeat steps 2 to 4 for all channels, if required.
- 6 Press  (PRESET) again.

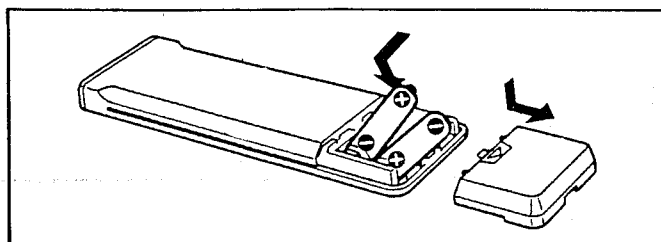
To have the unused program positions skipped when PROGR+ or PROGR- is pressed:

- 1 Press  (PRESET)
- 2 Press PROGR to select the unused position.
- 3 Press C (CLEAR)
- 4 Repeat steps 2 and 3 for all unused positions.
- 5 Press  (PRESET) again.

On-screen display while tuning

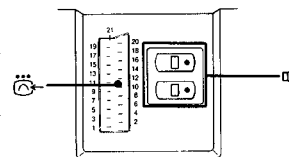


- 4** Inset two R6 batteries checking the correct polarity.



1-2. CONNECTING OTHER EQUIPMENT

Connectors on rear of set



L/G/S	Left external speaker terminal (2-pin DIN)	Connect to external speakers. The TV speakers will be disconnected. Speaker 8-16Ω
R/D/D	Right external speaker terminal (2-pin DIN)	
	21-pin connector (CENELEC standard)	Connect to a VTR, micro computer, etc. using an optional connection cord. The picture of the TV channel being received is always output.

VTR operation using the supplied Commander

To control a Sony 8mm VTR

Remote operation of the VTR is limited to the features and functions of the VTR. For further details refer to the VTR manual.

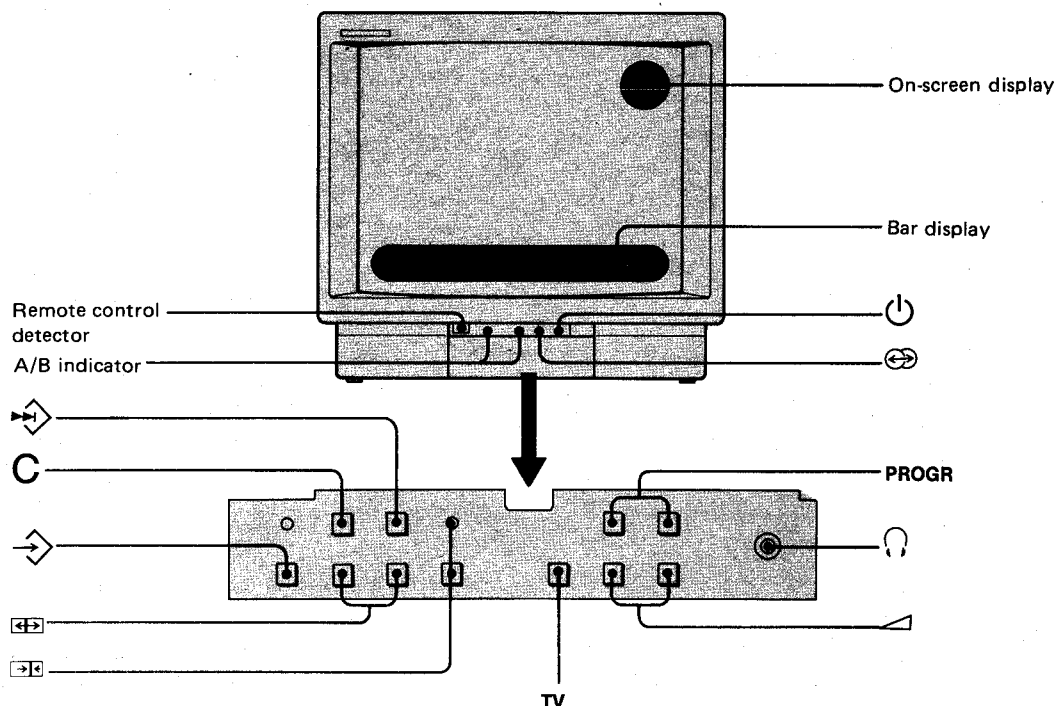
Note

Move the VTR away from the TV, if the picture or sound is distorted.

Pin No.	Signal	Signal level
1	Audio output B (right)	Standard level: 0.5 Vrms Output impedance: Less than 1 k ohm*
2	Audio input B (right)	Standard level: 0.5 Vrms Input impedance: More than 10 k ohms*
3	Audio output A (left)	Standard level: 0.5 Vrms Output impedance: Less than 1 k ohm*
4	Ground (audio)	
5	Ground (blue)	
6	Audio input A (left)	Standard level: 0.5 Vrms Input impedance: More than 10 k ohms*
7	Blue input	0.7 V ±2 dB, 75 ohms, positive
8	Function select (AV control)	High state (9.5–12V): Part mode Low state (0–2 V): TV mode Input impedance: More than 10 k ohms Input capacitance: Less than 2 nF
9	Ground (green)	
10	Open	
11	Green/Green with sync input	Green signal: 0.7 V ±2 dB, 75 ohms, positive Green with sync signal: 1 V ±2 dB, 75 ohms, positive
12	Open	
13	Ground (red)	
14	Ground (blanking)	
15	Red input	(Same as Pin 7)
16	Blanking input (Ys signal)	High state (1–3 V) Low state (0–0.4 V) Input impedance: 75 ohms
17	Ground (video output)	
18	Ground (video input)	
19	Video output	1 V ±2 dB, 75 ohms, positive Sync: 0.3 V (–3, ±10 dB)
20	Video input	1 V ±2 dB, 75 ohms, positive Sync: 0.3 V (–3, ±10 dB)
21	Common ground (plug, shield)	

* at 20 Hz–20 kHz

1-3. FUNCTION OF CONTROLS



On the set

On-screen display

Indicates program numbers and input mode.

Bar display

Indicates the level of volume, color, brightness, contrast, bass, treble and balance.

• Note on function.

When the volume is at the minimum setting the balance function will not operate.

power switch

To cut off the mains power completely, press this switch.

standby indicator

Lights up brightly when the set is in the standby mode.

space sound indicator

Lights up when on the Remote Commander is pressed.

A/B indicator

One of them lights during bilingual broadcast. (Choose A or B with the Remote Commander.)

Both light during stereo broadcast. In AV mode, A lights for left channel, B for right channel, or A and B for both channels.

Remote control detector

Point the Remote Commander towards this detector.

Note

- To ensure correct operation push the switch in fully.

Inside the panel

headphones jack (stereo minijack)

search buttons

Press to fine tune a weak channel manually, if required.

When (SEARCH) is pressed, the indicator goes off and the (AFT) circuit does not function on the selected channel.

To restore the (AFT) circuit on this channel, press (AFT) so that the indicator lights up.

AFT button and indicator

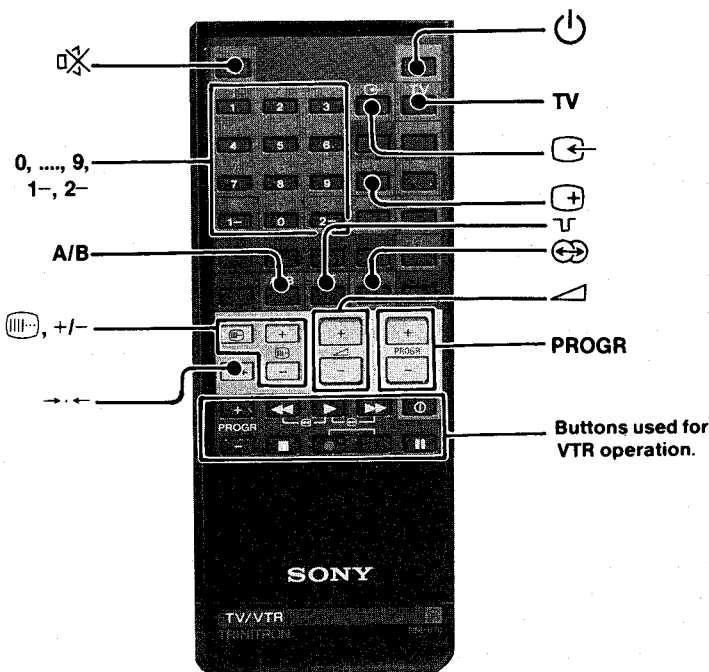
Normally, press (AFT) so that the indicator lights up. The AFT circuit automatically fine tunes the channels for the best possible picture.

volume buttons

PROGR program scan buttons

Note

- The TV button does not function on this set.



On the Remote Commander

To operate the Commander, point it toward the remote control detector.

mute button

0, ..., 9, 1-, 2- buttons

To tune in to:
program 15, press 1- and 5
program 25, press 2- and 5

A/B button

Press to select the language in a bilingual broadcast, or to select the channel in AV mode.

, +/— analog select buttons

Press →← first, then press .

(contrast) will appear on the screen. Adjust by pressing + or —. Press again and adjust (colour), (brightness), (bass), (treble) and (balance).

→← reset button

Press to reset color and contrast to factory-set levels.

standby button

Press to change to the standby mode. Use this button to turn off the set for short periods of time.

To turn on the set, press TV or the program number, there will be a slight delay before the picture is restored.

TV button

Press to change to the TV mode from the standby, input or teletext modes.

input button

Press to view the input picture coming in through the connector.

" " lights up on the screen.

Press TV or the program number to return to the TV mode.

loudness button

Press to emphasize high and low notes.

on-screen display button.

Press to make the display appear on the screen.

Press again to make it disappear.

space sound button

Press to obtain special acoustic effects.

PROGR program scan buttons

volume buttons

1-4. VIEWING TELETEXT

To view the teletext service, use the Remote Commander.
The buttons used for teletext operation are indicated in green.

Operation

- 1 Select the TV channel for the desired teletext service.
- 2 Press / (TEXT/MIX) to display the teletext service. Once / (TEXT/MIX) has been pressed, the TV channel cannot be changed.
- 3 Key in the three digits for the desired page using the number buttons. If an error is made, complete the three-digit sequence by keying in any digit. Then, re-enter the correct page number.
The requested teletext page is displayed.

To return to the TV mode, press TV.

The teletext service can be displayed directly from the standby mode, by pressing / (TEXT/MIX)

To receive the teletext service of a different TV channel

- 1 Press TV to return to the TV mode.
- 2 Select the desired TV channel.
- 3 Press / (TEXT/MIX)

Note

To receive the teletext service accurately, keep AFT inside the panel switched on during teletext operation.

To display the index page

Press (INDEX.)

If the necessary signal is not being broadcast, page 100 is displayed.

To access the next or preceding page

Press (PAGE +) or (PAGE -).

If, for example, page 160 is selected this page is displayed and pages 159, 161 and 162 are stored and may be called up immediately by means of the , keys.

To superimpose the teletext display on the TV picture

Press / (TEXT/MIX) twice from TV mode.
Press again to return to the TEXT display.

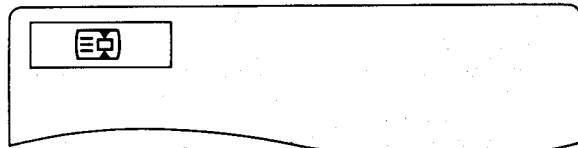
To suppress the teletext display so that the TV picture is displayed

Press (TEXT CL.)

This button can be operated from both the TEXT and MIX displays.

To prevent a teletext page (subpage) from being updated/changed

Press (HOLD) appears at the top of the screen.



To resume normal teletext reception, press TEXT/MIX.

To enlarge the teletext display

Press (ENLARGE)

Press once to enlarge the upper half of the display; press again to enlarge the lower half of the display; press again to return to the normal display.

To reveal concealed information such as the answers to a quiz

Press REVEAL

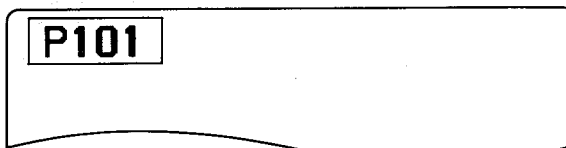
Press again to conceal the answers.

To adjust the contrast of the teletext display

Press until appears on the screen and adjust by pressing or .

To watch the TV program while waiting for a requested page to be displayed.

- 1 Request new page.
- 2 Press (TEXT CL.) to watch the TV program.
When the requested page has been captured, the page number will appear on the top left hand corner of the screen.



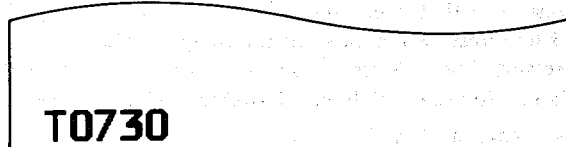
To view this page, press / (TEXT/MIX)

To have a requested page displayed at a predetermined time

- 1 Request a time coded page (e.g. alarm page).
- 2 Press (TP ON.)
T**** will appear at the bottom of the screen.



- 3 Enter your request time with the number buttons, using four digits. For example, 07:30.



To watch the TV program until the requested time, press (TEXT CL.) At the requested time, the page number will appear on the top left hand corner of the screen.

To view this page, press / (TEXT/MIX.)

To cancel the request, first ensure that the teletext page is displayed, then press (TP OFF.)

1-5. SIMPLE CHECK LIST

Disturbances in picture and sound can often be eliminated by checking the symptoms and following the suggestions listed below.

No picture (screen not lit), no sound

- Plug the set into a working outlet.
- Press ① on the TV or if the indicator is on, press TV or the Program number on the Remote Commander
- Check the aerial.

Poor or no picture (screen not lit) but good sound

- Press the button on the remote commander. Adjust ① and ② with the + button.
- Press → ←.

Good picture but no sound

- Press ∆ +.
- Disconnect the earphone.
- If "iX" is displayed on the screen, press iX

No color for color programs

- Press the button on the remote commander. Adjust ① with the + button ② with the + button.

Snow and noise

- Fine tune the channel manually.
- Check aerial connections.

Dotted lines or stripes

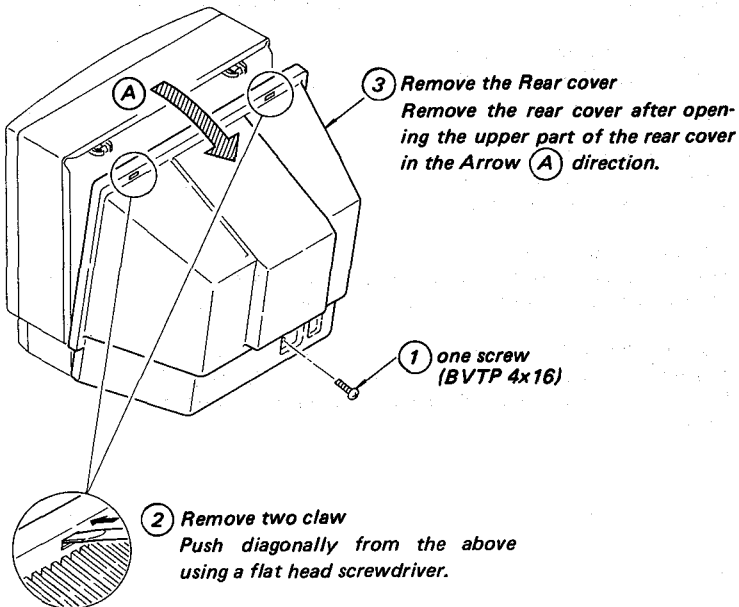
This may be caused by local interference (e.g. cars, neon signs, hairdryers, etc.). Adjust the antenna for minimum interference.

Double images or "ghosts"

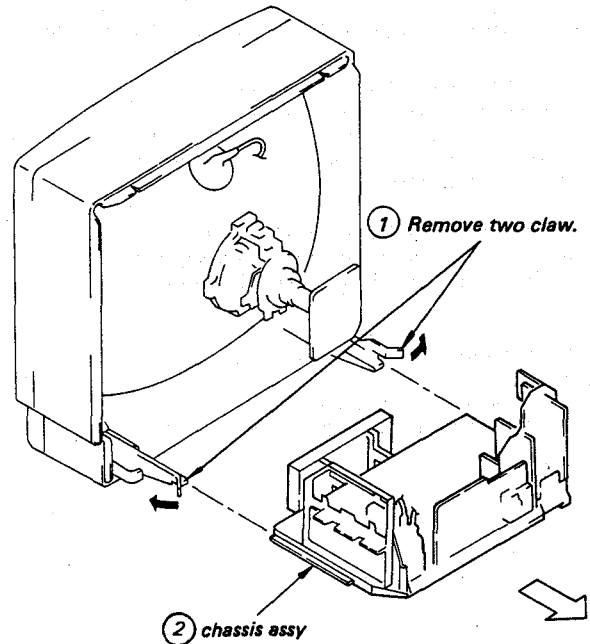
This may be caused by reflections from nearby mountains or buildings. A highly directional outdoor aerial may improve the picture.

SECTION 2 DISASSEMBLY

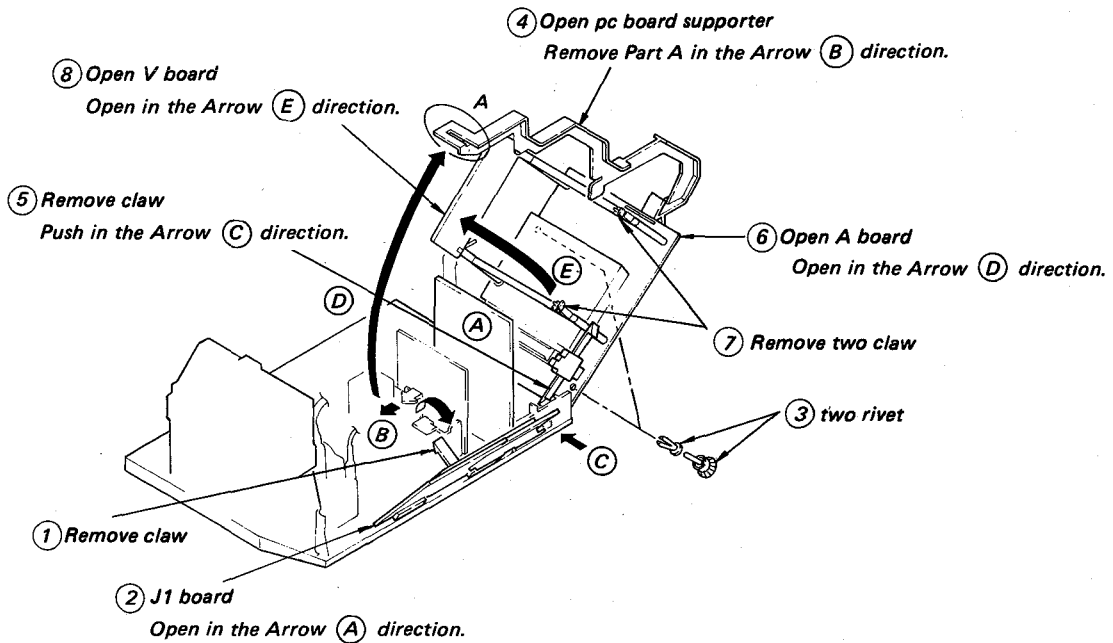
2-1. REAR COVER REMOVAL



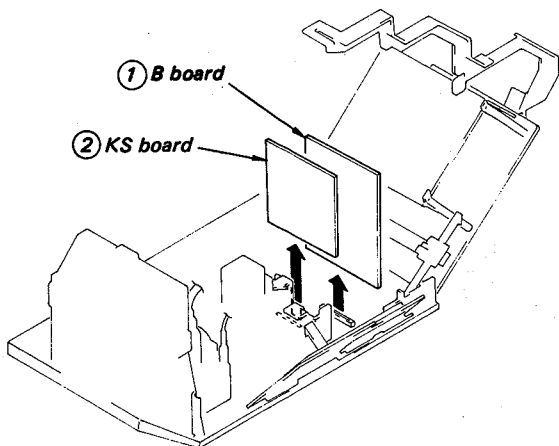
2-2. CHASSIS ASSY REMOVAL



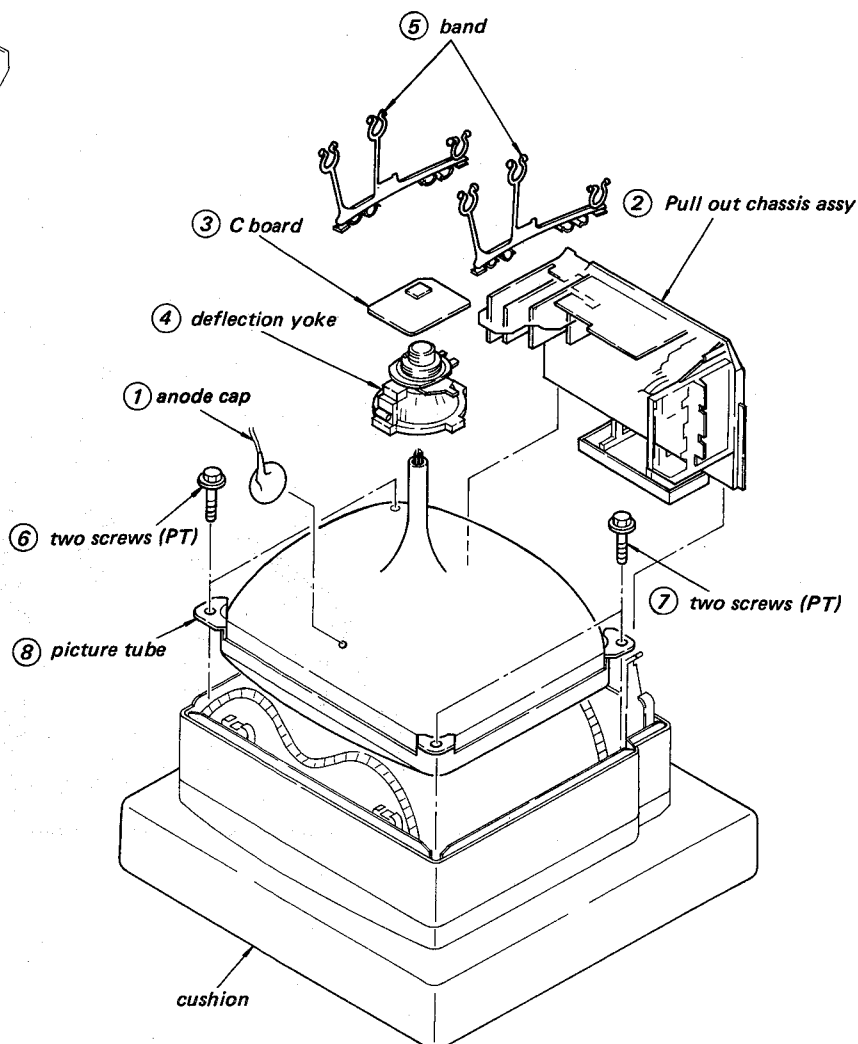
2-3. J1, A, V BOARD (V BOARD KV-21XSTD ONLY)



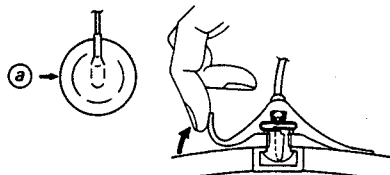
2-4. KS AND B BOARDS REMOVAL



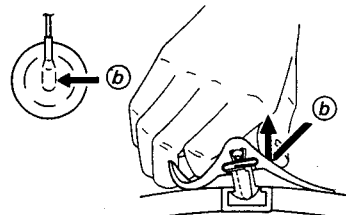
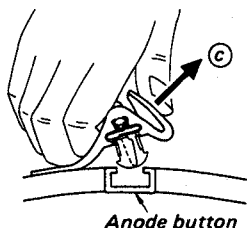
2-5. PICTURE TUBE REMOVAL



• Removing Procedures



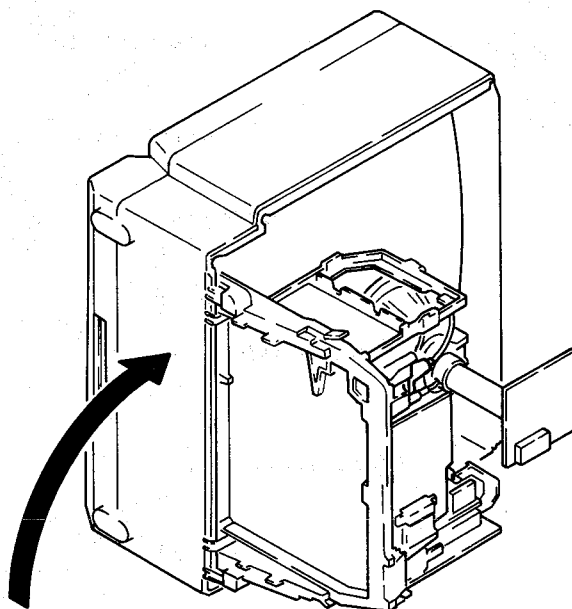
① Turn up one side of the rubber cap in the direction indicated by the arrow (a).



② Using a thumb, pull up the rubber cap firmly in the direction indicated by the arrow (b).

③ When one side of the rubber cap is separated from the anode button, the anode cap can be removed by turning up the rubber cap and pulling up it in the direction of the arrow (c).

2-6. SERVICE POSITION



Turn 90° with the cabinet chassis in mounted state.

SECTION 3

SETUP ADJUSTMENTS

- The following adjustments should be made when a complete realignment is required or a new picture tube is installed.
- These adjustments should be performed with rated power supply voltage unless otherwise noted.

Controls and switch should be set as follows unless otherwise noted:

- CONTRAST control 80% (or Normal by Commander)
- ☼ BRIGHTNESS control 50%

Perform the adjustments in order as follows:

1. Beam Landing
2. Convergence
3. Focus
4. White Balance

Note: Test Equipment Required.

1. Color-bar/pattern Generator
2. Degausser
3. DC power supply

3-1. BEAM LANDING

1. Input a raster signal with the pattern generator.
 CONTRAST } normal
 BRIGHTNESS }
2. Turn the raster signal of the pattern generator to red.
3. Move the deflection yoke backward, and adjust with the purity control so that red is in the center and blue and green are at the sides, evenly. (Fig. 3-1~3-3)
4. Move the deflection yoke forward, and adjust so that the entire screen becomes red.
5. Switch over the raster signal to blue and green and confirm the condition.
6. When landing at the corners is not right, adjust by using the magnet. (Fig. 3-4)
7. When the position of the deflection yoke is determined, tighten it with a deflection yoke mounting screw.

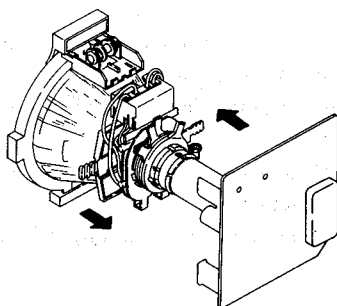


Fig. 3-1

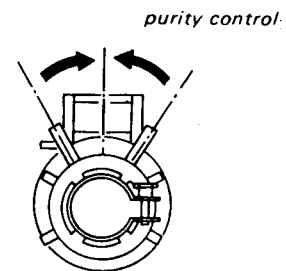


Fig. 3-2

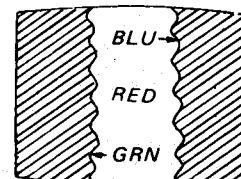


Fig. 3-3

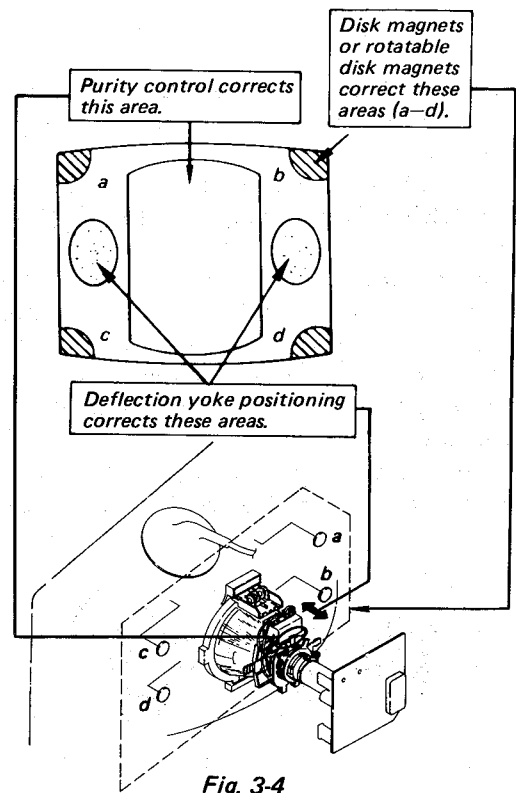


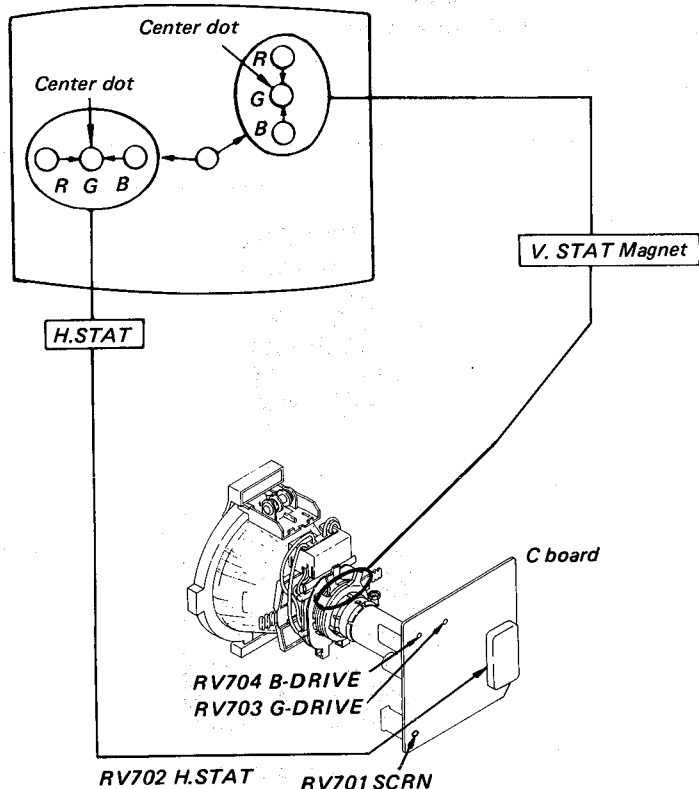
Fig. 3-4

3-2. CONVERGENCE

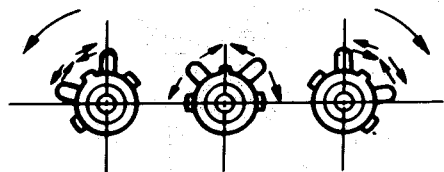
Preparation:

- Before starting, perform FOCUS, H. SIZE, V. SIZE and V. LIN adjustments.
- Set BRIGHTNESS control to minimum.
- Feed in the dot pattern.

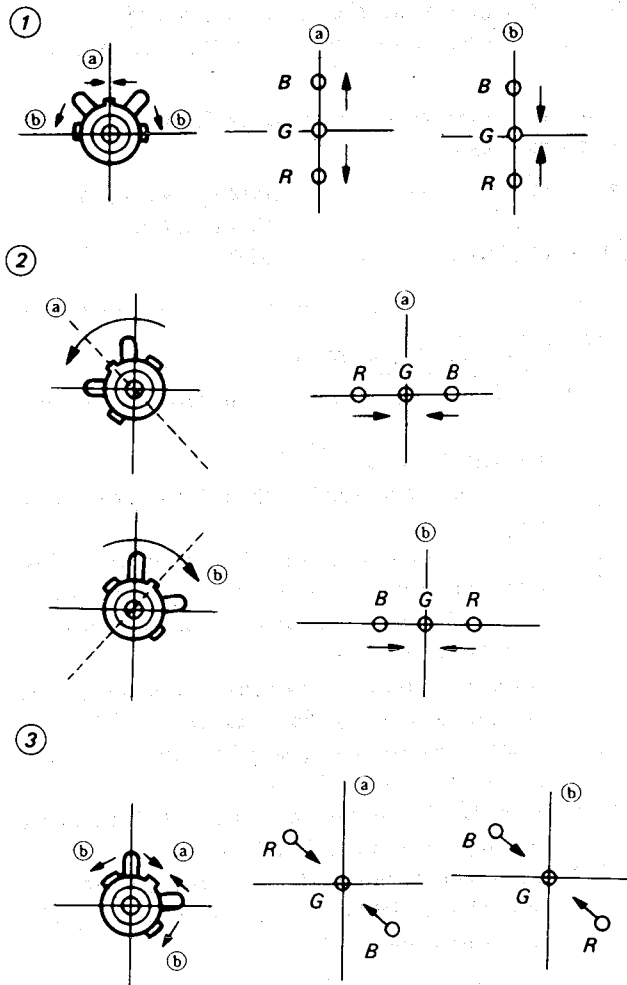
(1) Horizontal and Vertical Static Convergence



1. Adjust H. STAT VR to coincide red, green and blue dots on the center of screen (Horizontal movement)
 2. Adjust V. STAT magnet to coincide red, green and blue dots on the center of screen (Vertical movement)
 3. If the red, green and blue dots do not coincide on the center of screen with H. STAT VR, perform horizontal convergence adjustment using H. STAT VR and V. STAT magnet as shown below. (In this case, H. STAT VR and V. STAT magnet effect each other.)
- Tilt the V. STAT magnet and adjust static convergence to open or close the V. STAT magnet.



4. When the V. STAT magnet is moved in the direction of arrow (a) and (b), Red, Green and Blue dots move as shown below.

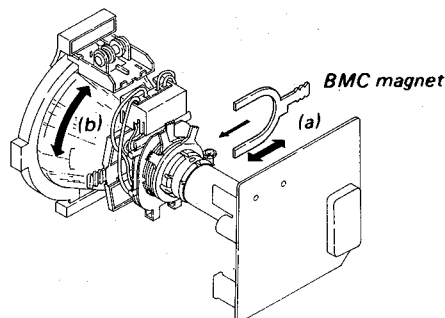


If blue dot does not coincide with red and green dots, perform following steps.

Move BMC magnet (a) to correct insufficient H. static convergence.

Rotate BMC magnet (b) to correct insufficient V. static convergence.

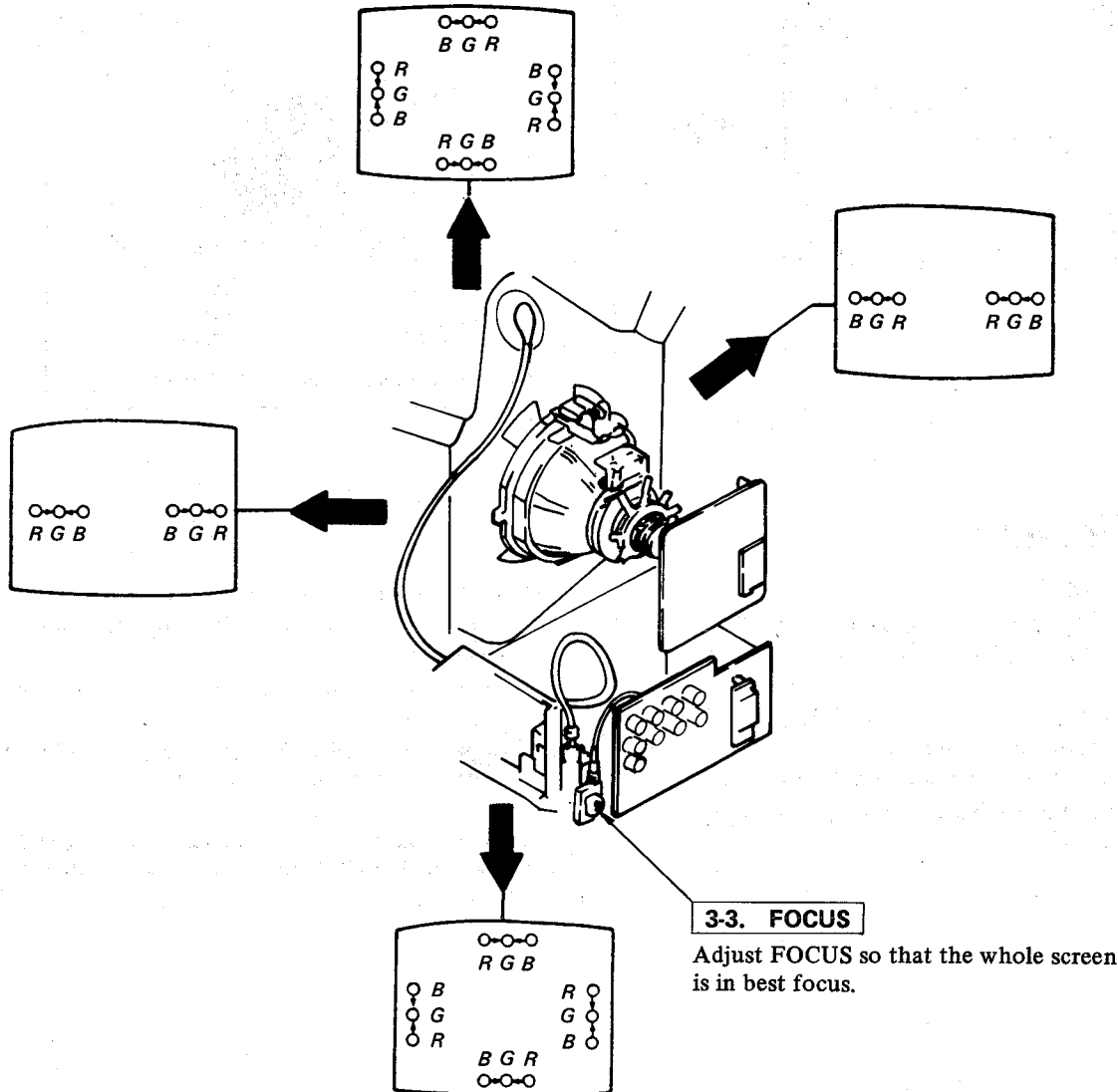
In either case, repeat Beam Landing Adjustment.



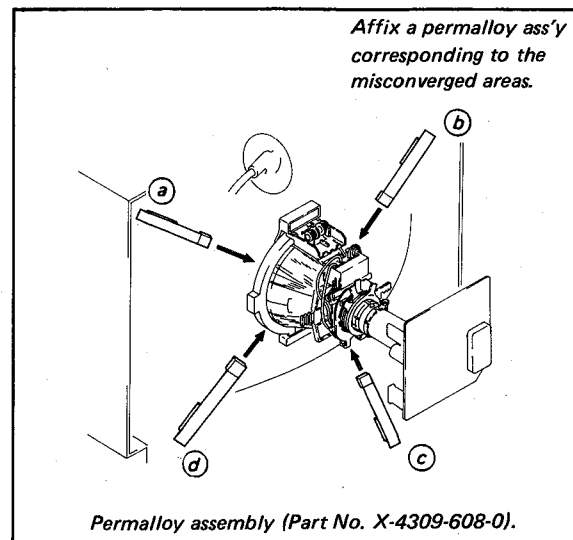
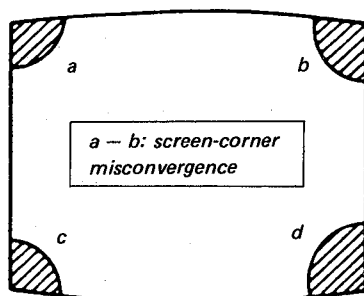
(2) Dynamic Convergence Adjustment

Preparation:

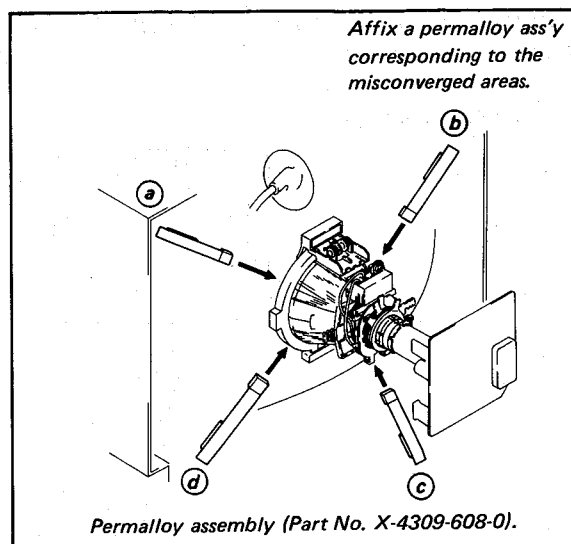
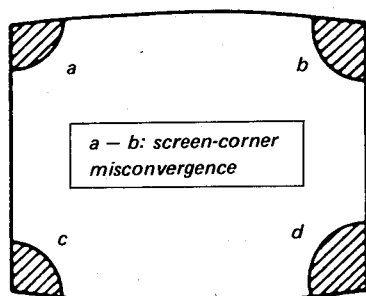
- Before starting, perform Horizontal and Vertical Static Convergence Adjustment.
- 1. Loosen deflection yoke screw.
- 2. Remove deflection yoke spacers.
- 3. Move the deflection yoke for best convergence as shown below.
- 4. Tighten the deflection yoke screw.
- 5. Install the deflection yoke spacers.



(3) Screen-corner Convergence



(3) Screen-corner Convergence



3-4. WHITE BALANCE

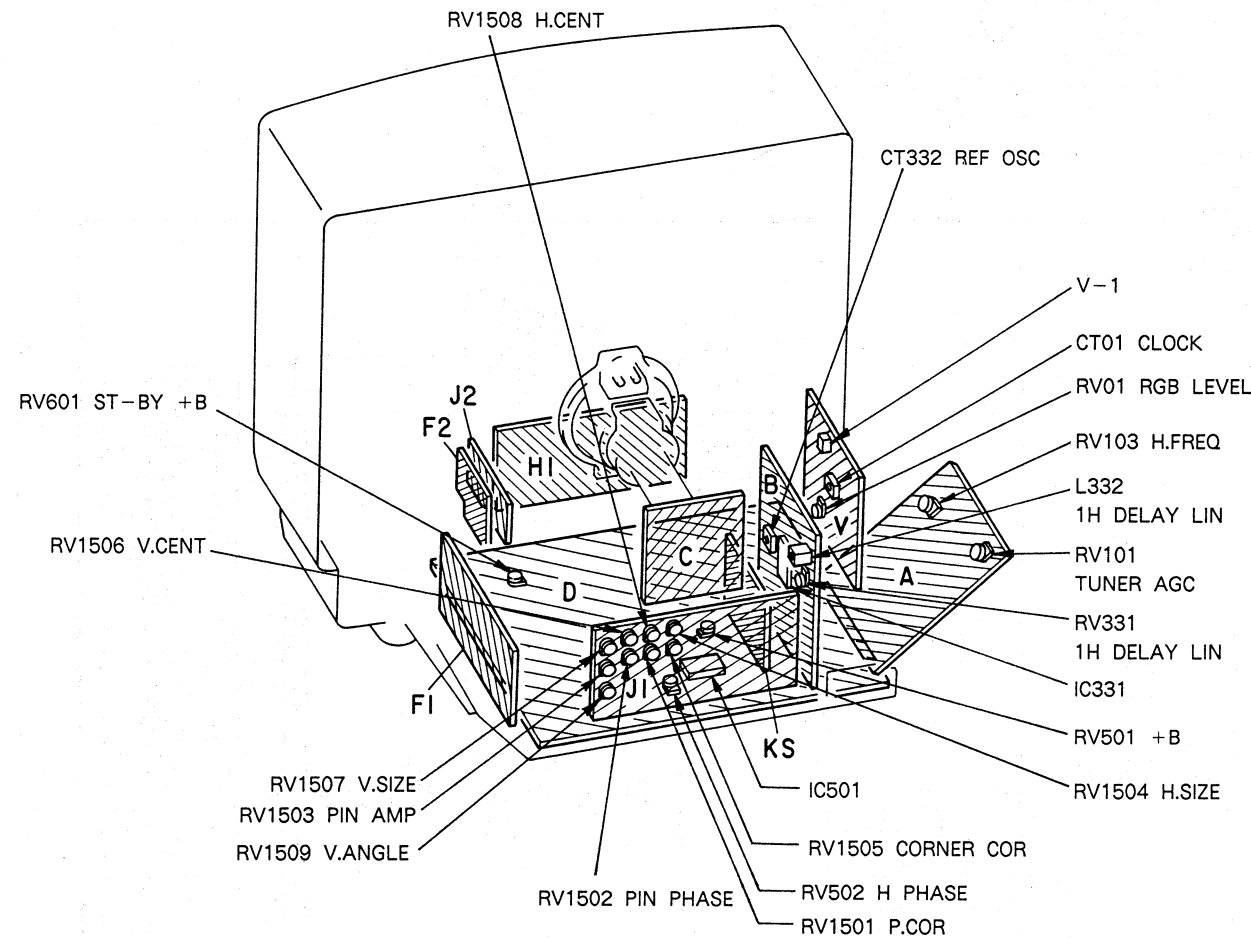
[Scree (G2) Setting]

1. Receive a dot signal from the pattern generator.
2. Set the picture brightness control to the minimum level.
3. Apply 170V_{DC} to the cathodes of R, G, and B from an external power source.
4. Adjust the G2 volume knob (RV701) immediately before the fly-back line disappears while watching the picture.

[White Balance Adjustment]

1. Receive an all-white signal from the pattern generator.
2. Adjust the picture brightness and color control to the standard level.
3. Adjust the white balance using RV704 (B DRIVE) and RV703 (G DRIVE).

In following adjustment the condition of CONTRAST COLOR and BRIGHTNESS are normal unless otherwise specified.

SECTION 4
CIRCUIT ADJUSTMENTS

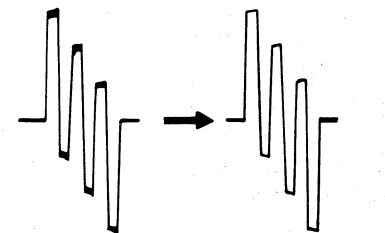
4-1. B BOARD ADJUSTMENTS

REF OSC Adjustment (CT332)

1. Input PAL COLOR BAR signal.
2. Short circuit between pin (17) of IC331 and ground.
3. Adjust CT332 to obtain color synchronization.
4. Remove a jumper wire from IC331.

1H DELAY LINE Adjustment (L332, RV331)

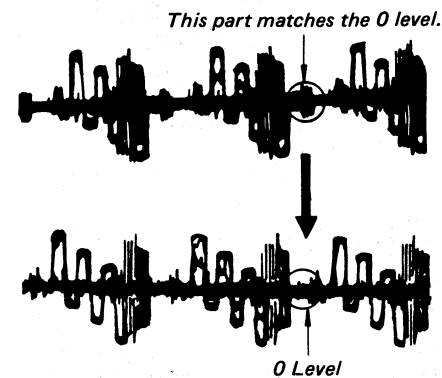
1. Input a PAL COLOR BAR.
2. Connect the oscilloscope to Pin (3) (B-Y) of IC331 and observe the waveform of the H block on the oscilloscope.
3. Adjust L332 to minimize the double waveform outline.



Before Adjustment After Adjustment

4. Input a TEST COLOR BAR.

5. Rotate the RV331 control and adjust till the ANT PAL of the waveform part matches the 0 level.



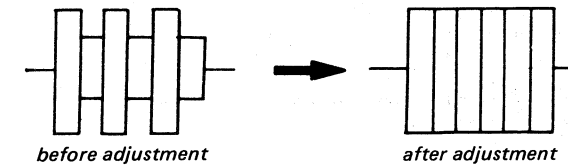
6. L332 and RV331 affect each other. Repeat till the conditions of both meet.

SECAM ID Adjustment (L335)

1. Input SECAM COLOR BAR signal.
2. Connect a Digital Multi-meter at pin (21) of IC331.
3. Adjust L335 so that the indicator goes up to the maximum.

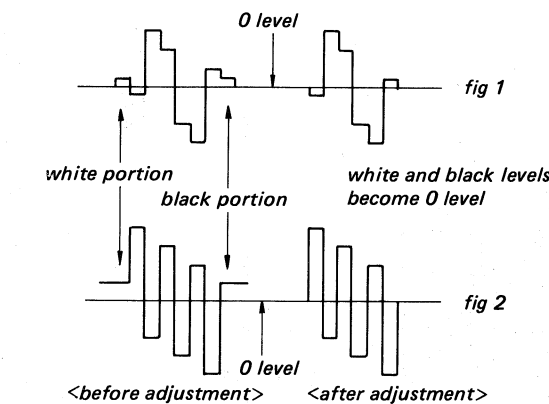
BELL FILTER Adjustment (T331)

1. Input SECAM COLOR BAR signal.
2. Connect an oscilloscope to the emitter of Q335.
3. Adjust T331 so that the waveform becomes flat.



SECAM DISCRI Adjustment (L333, L334)

1. Input SECAM COLOR BAR signal.
2. Connect an oscilloscope at pin (1) of IC331.
3. Adjust L333 so that white and black part of the waveform of pin (1) becomes 0 level. (fig 1)
4. Connect an oscilloscope at pin (3) of IC331.
5. Adjust L334 so that white and black part of the waveform of pin (3) becomes 0 level. (fig 2)



4-2. D BOARD ADJUSTMENTS

+B Adjustment (RV501)

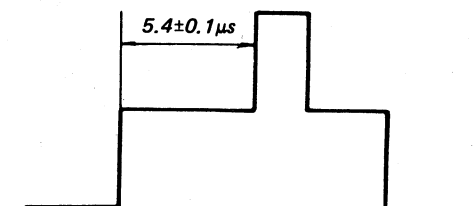
1. Connect a digital multimeter to TP91.
 2. Adjust RV501 so that the voltage becomes $135 \pm 0.2V$.
- *Adjust within 30 sec to 60 sec after the power is turned on.

ST-BY +B Adjustment (RV601)

1. Set up (standby (Remote Commander) mode.
2. Connect the digital multimeter to TP91.
3. Adjust RV601 so that the voltage becomes $135 \pm 1V$.
4. Release the (standby (Remote Commander) mode.

H PHASE Adjustment (RV502)

1. Input the PAL TEST COLOR BAR signal.
2. Set the CONTRAST and BRIGHTNESS controls to the standard positions.
3. Set RV1508 (H CENT) to the mechanical centre position.
4. Connect an oscilloscope to Pin (11) (SPC OUT) of IC501.
5. Rotate RV502 and adjust Block to $5.4 \pm 0.1\mu s$.



4-3. A BOARD ADJUSTMENT

H. FREQ. Adjustment (RV103)

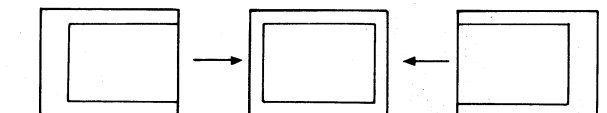
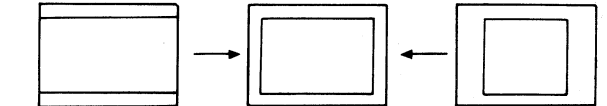
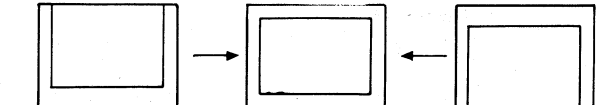
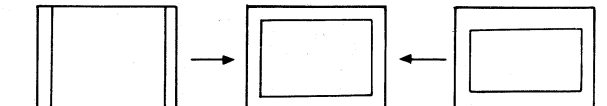
1. Input PAL COLOR.
2. Short circuit between pin (12) of IC104 and ground.
3. Connect a frequency counter to the pin (6) of IC104 through a probe of 10:1.
4. Adjust RV103 so that H. frequency becomes $15,625 \pm 50Hz$.

TUNER AGC Adjustment (RV101)

1. Tune in an off-air signal.
2. Adjust RV101 so that snow-noise and cross-modulation just disappear from the picture.

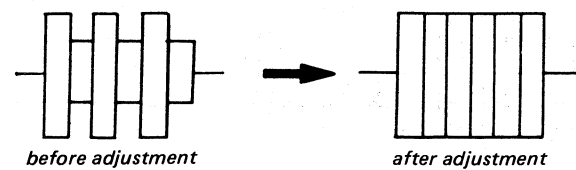
STEREO SEPARATION Adjustment (RV102)

1. Receive a stereo signal (L-CH 1kHz, R-CH 400Hz)
2. Confirm the stereo indicator.
3. Connect an oscilloscope to the pin (1) (L) of CNA11 through band pass filter of 1kHz.
4. Adjust RV102 so that 1kHz voltage goes down to the minimum.

4-4. J₁ BOARD ADJUSTMENTSRV1508
H.CENT (HORIZONTAL CENTER)RV1504
H.SIZE (HORIZONTAL SIZE)RV1506
V.CENT (VERTICAL CENTER)RV1507
V.SIZE (VERTICAL SIZE)

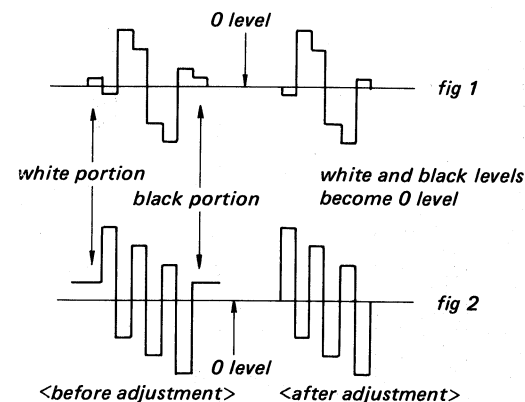
BELL FILTER Adjustment (T331)

1. Input SECAM COLOR BAR signal.
2. Connect an oscilloscope to the emitter of Q335.
3. Adjust T331 so that the waveform becomes flat.



SECAM DISCRI Adjustment (L333, L334)

1. Input SECAM COLOR BAR signal.
2. Connect an oscilloscope at pin ① of IC331.
3. Adjust L333 so that white and black part of the waveform of pin ① becomes 0 level. (fig 1)
4. Connect an oscilloscope at pin ③ of IC331.
5. Adjust L334 so that white and black part of the waveform of pin ③ becomes 0 level. (fig 2)



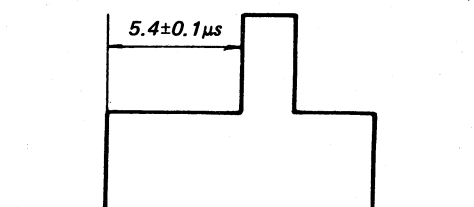
4-2. D BOARD ADJUSTMENTS

+B Adjustment (RV501)

1. Connect a digital multimeter to TP91.
 2. Adjust RV501 so that the voltage becomes $135 \pm 0.2V$.
- *Adjust within 30 sec to 60 sec after the power is turned on.

ST-BY +B Adjustment (RV601)

1. Set up standby (Remote Commander) mode.
 2. Connect the digital multimeter to TP91.
 3. Adjust RV601 so that the voltage becomes $135 \pm 1V$.
 4. Release the standby (Remote Commander) mode.
- ##### H PHASE Adjustment (RV502)
1. Input the PAL TEST COLOR BAR signal.
 2. Set the CONTRAST and BRIGHTNESS controls to the standard positions.
 3. Set RV1508 (H CENT) to the mechanical centre position.
 4. Connect an oscilloscope to Pin ① (SPC OUT) of IC501.
 5. Rotate RV502 and adjust Block to $5.4 \pm 0.1\mu s$.



4-3. A BOARD ADJUSTMENT

H. FREQ. Adjustment (RV103)

1. Input PAL COLOR.
2. Short circuit between pin ⑫ of IC104 and ground.
3. Connect a frequency counter to the pin ⑥ of IC104 through a probe of 10:1.
4. Adjust RV103 so that H. frequency becomes $15,625 \pm 50Hz$.

TUNER AGC Adjustment (RV101)

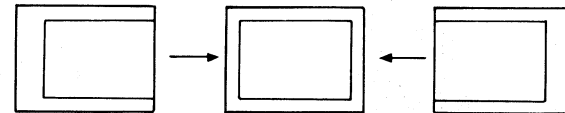
1. Tune in an off-air signal.
2. Adjust RV101 so that snow-noise and cross-modulation just disappear from the picture.

STEREO SEPARATION Adjustment (RV102)

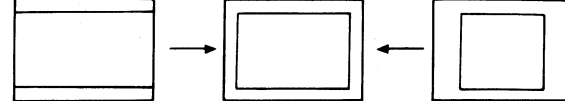
1. Receive a stereo signal (L-CH 1kHz, R-CH 400Hz).
2. Confirm the stereo indicator.
3. Connect an oscilloscope to the pin ① (L) of CNA11 through band pass filter of 1kHz.
4. Adjust RV102 so that 1kHz voltage goes down to the minimum.

4-4. J₁ BOARD ADJUSTMENTS

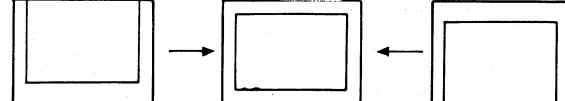
RV1508 H.CENT (HORIZONTAL CENTER)



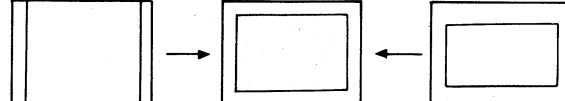
RV1504 H.SIZE (HORIZONTAL SIZE)



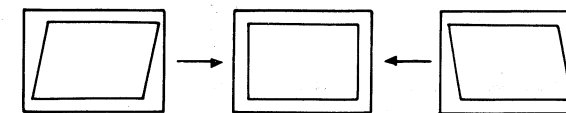
RV1506 V.CENT (VERTICAL CENTER)



RV1507 V.SIZE (VERTICAL SIZE)



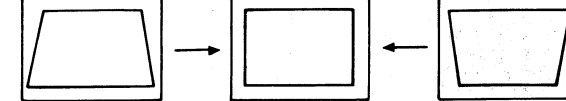
RV1509 V.ANGLE (VERTICAL ANGLE)



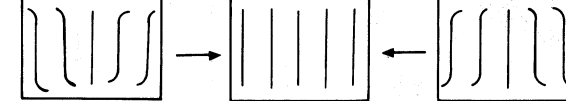
RV1503 PIN AMP (PINCUSHION AMPLIFIER)



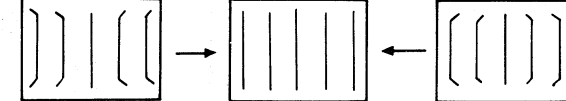
RV1502 PIN, PHASE (PINCUSHION PHASE)



RV1501 P.COR (PINCUSHION CORRECT)



RV1505 CORNER. COR (CORNER CORRECT)



4-5. V BOARD ADJUSTMENTS (KV-21XSTD ONLY)

Clock Adjustment (CT01)

1. Disconnect the V-1 connector.
2. Set up the TELETXT mode.
3. Adjust CT01 to stop pictures from scrolling.

RGB Level Adjustment (RV01)

Operate RV01 to adjust the RGB output (from black to white) to 0.7V.

4-6 SUB ADJUSTMENTS

SUB BRIGHTNESS Adjustment

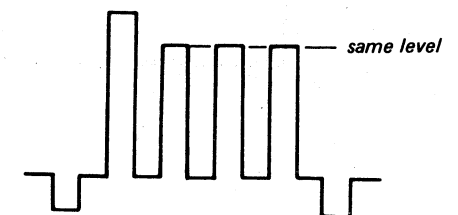
1. Receive and display a TEST COLOR BAR pattern.
2. Push $\rightarrow \leftarrow$ with the remote controller to invoke the normal state.
3. Turn off the power supply.
4. Turn on the power supply while pushing the SUB button (S1414). (SUB mode is invoked.)
5. Reduce the CONTRAST to the minimum level.
6. Adjust the BRIGHTNESS control until the 0 IRE of the gray scale becomes completely cut off, and the 20 IRE becomes barely luminous.
7. Push the AFT button (SUB mode is cleared).

Where no TEST COLOR BAR pattern is available.

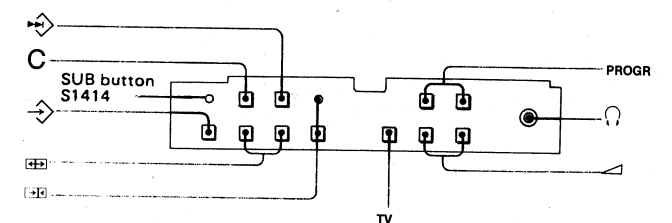
1. Display a COLOR BAR pattern.
 2. Push $\rightarrow \leftarrow$ with the remote commander to invoke the normal state.
Set the COLOR to BLACK/WHITE, the mode, 3 ~ 5 are the same as above.
 6. Adjust the BRIGHTNESS control until 20 IRE, which is close to blue, until blue lights faintly.
 7. Same as above.
 8. Push $\rightarrow \leftarrow$ with the remote commander to invoke the normal state.
- * When "4" is executed correctly, S (SUB mode) is displayed on the upper right corner of the display. As S is displayed only for 30 seconds, adjust within 30 seconds, or repeat from 4 again.

SUB COLOR Adjustment

1. Display a COLOR BAR pattern.
2. Push $\rightarrow \leftarrow$ with the remote commander to invoke the normal state.
3. Turn off the power supply.
4. Turn on the power supply while pushing the SUB button (S1414). (SUB mode is invoked.)
5. Adjust the COLOR control until the B out (Pin ②) of CNC72 connector on C board) waveform becomes as shown below.
6. Push the AFT button. (SUB mode is cleared.)

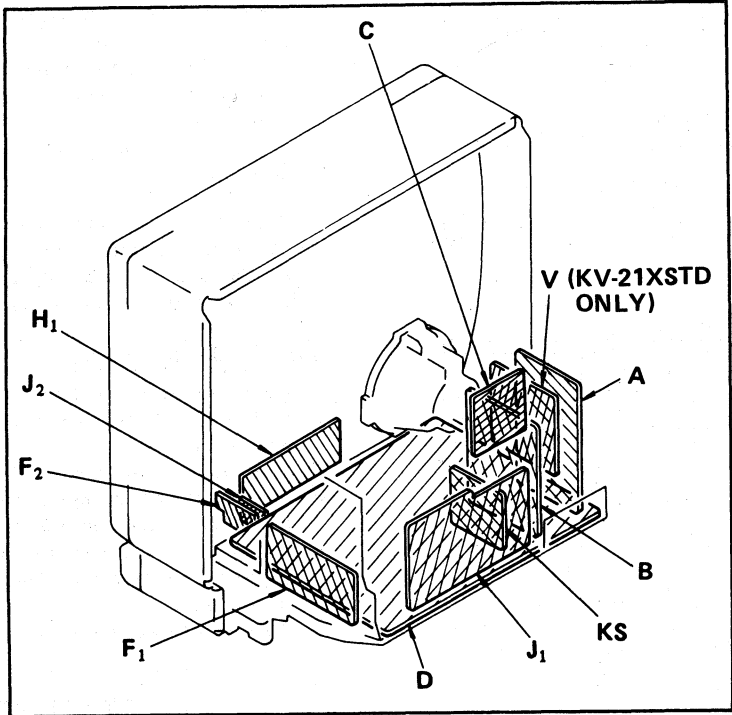


- * When "4" is executed correctly, S (SUB mode) is displayed at the upper right corner of the display. As S (SUB mode) is displayed only for 30 seconds, adjust quickly, or restart from 4 again.

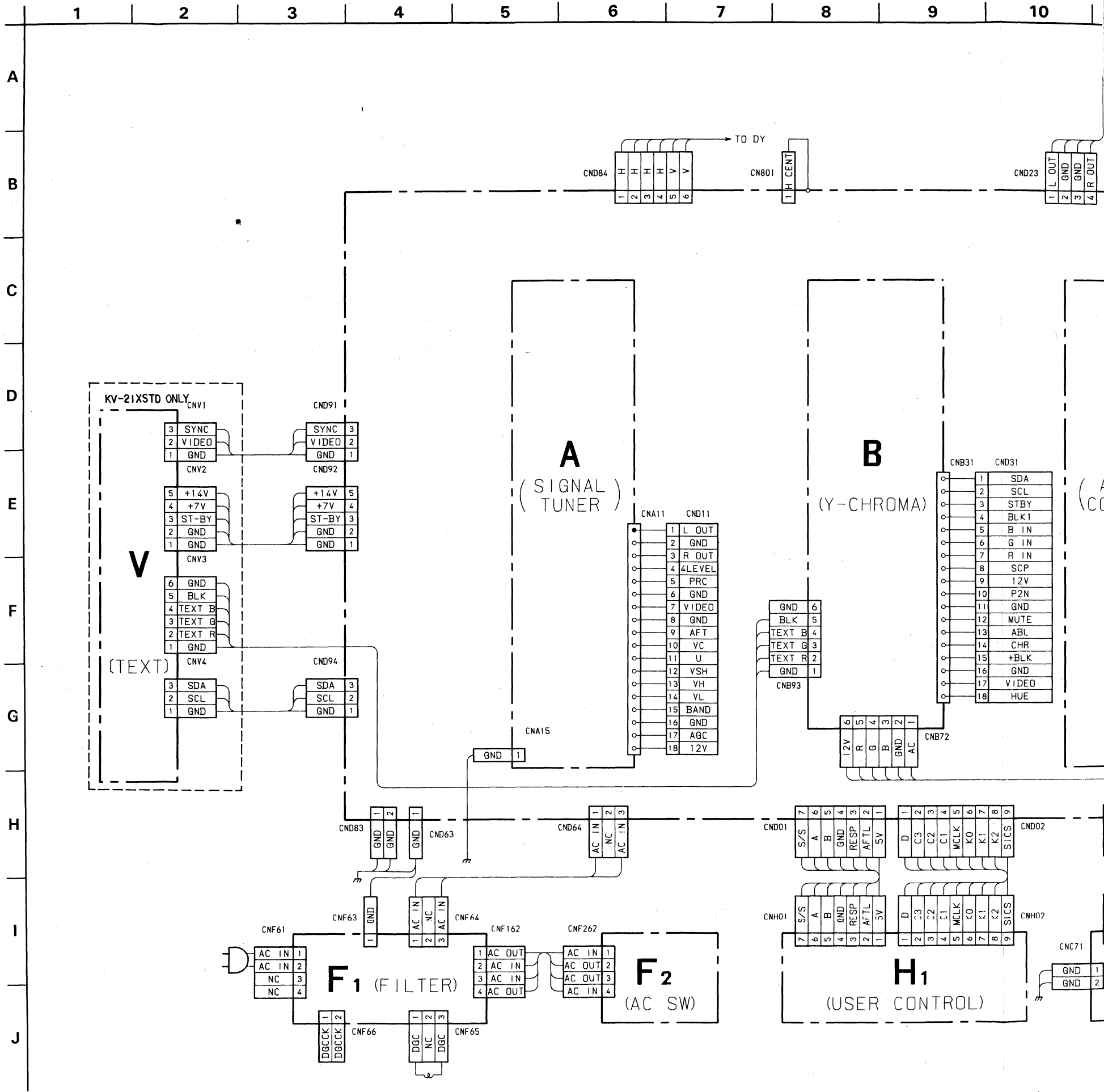


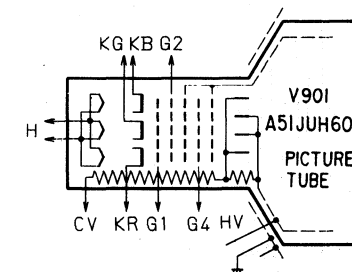
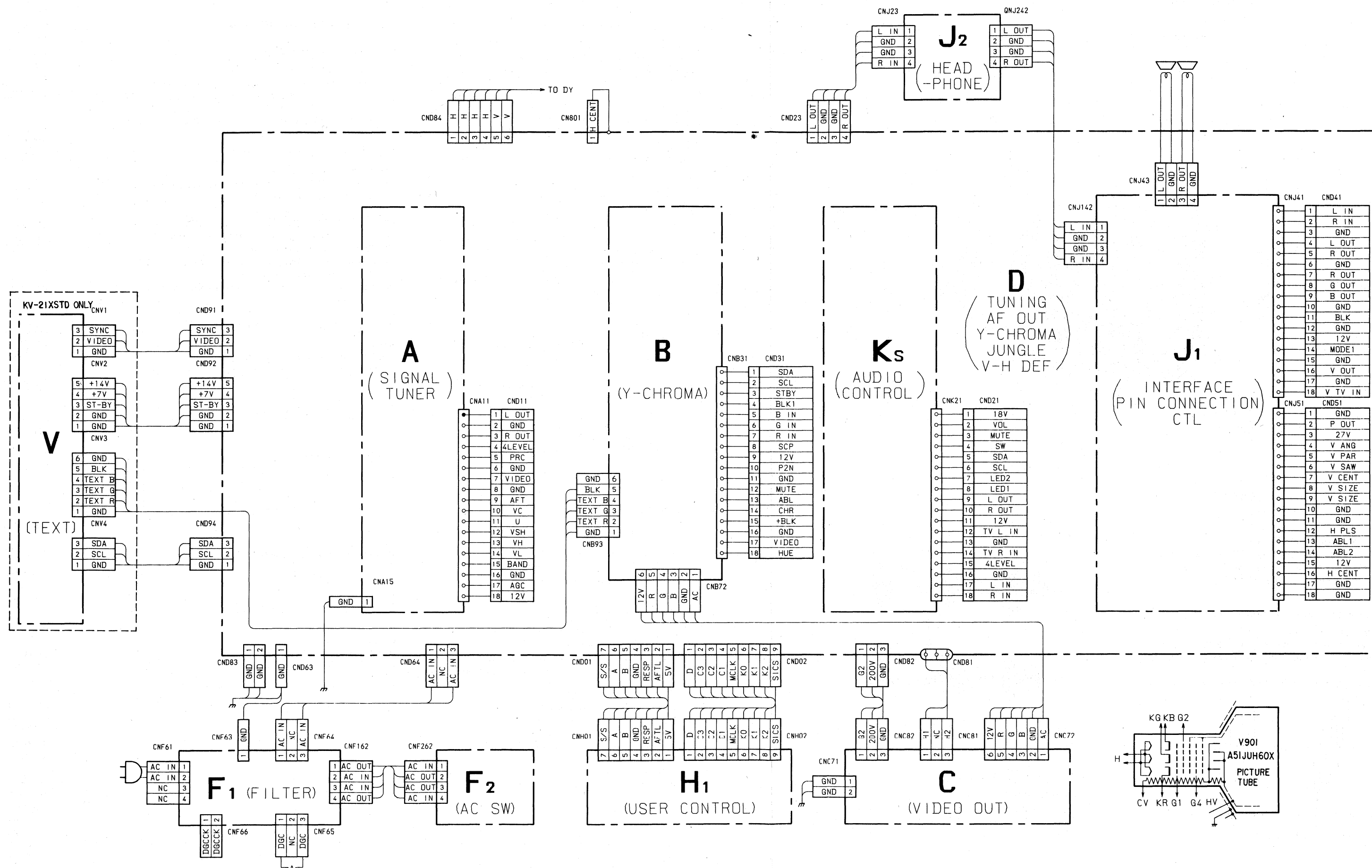
SECTION 5
DIAGRAMS

5-1. CIRCUIT BOARDS LOCATION



5-2. FRAME SCHEMATIC DIAGRAM

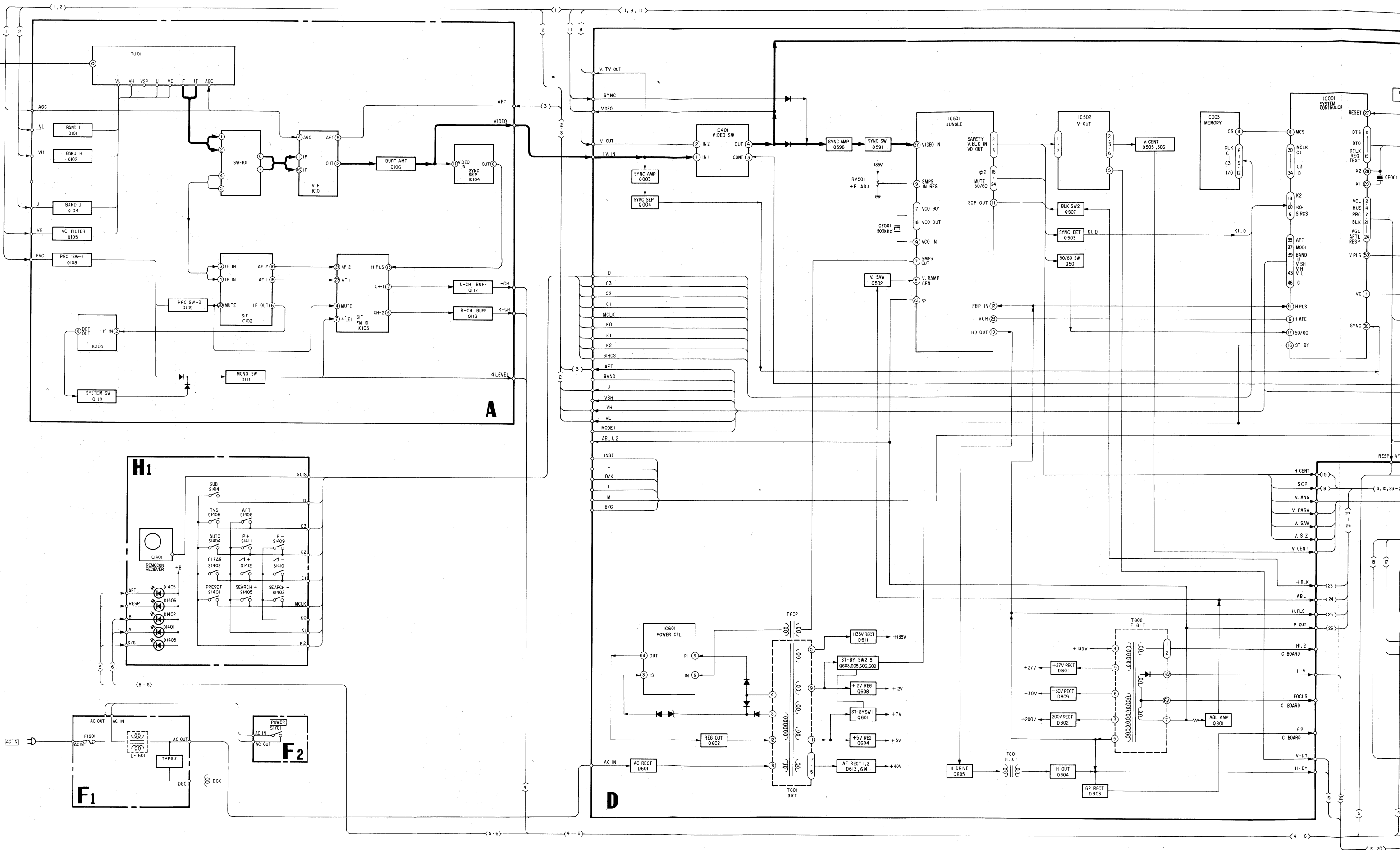


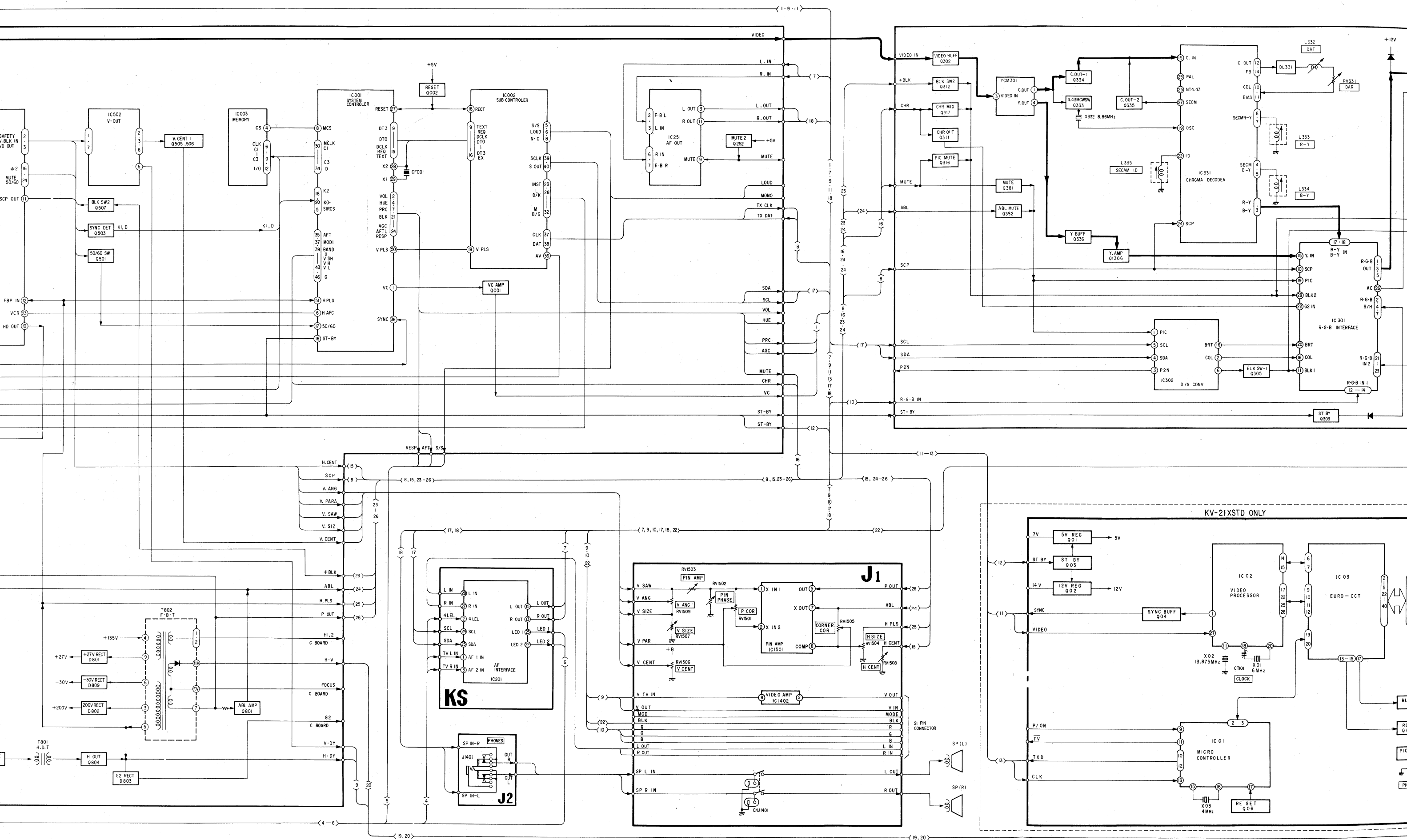


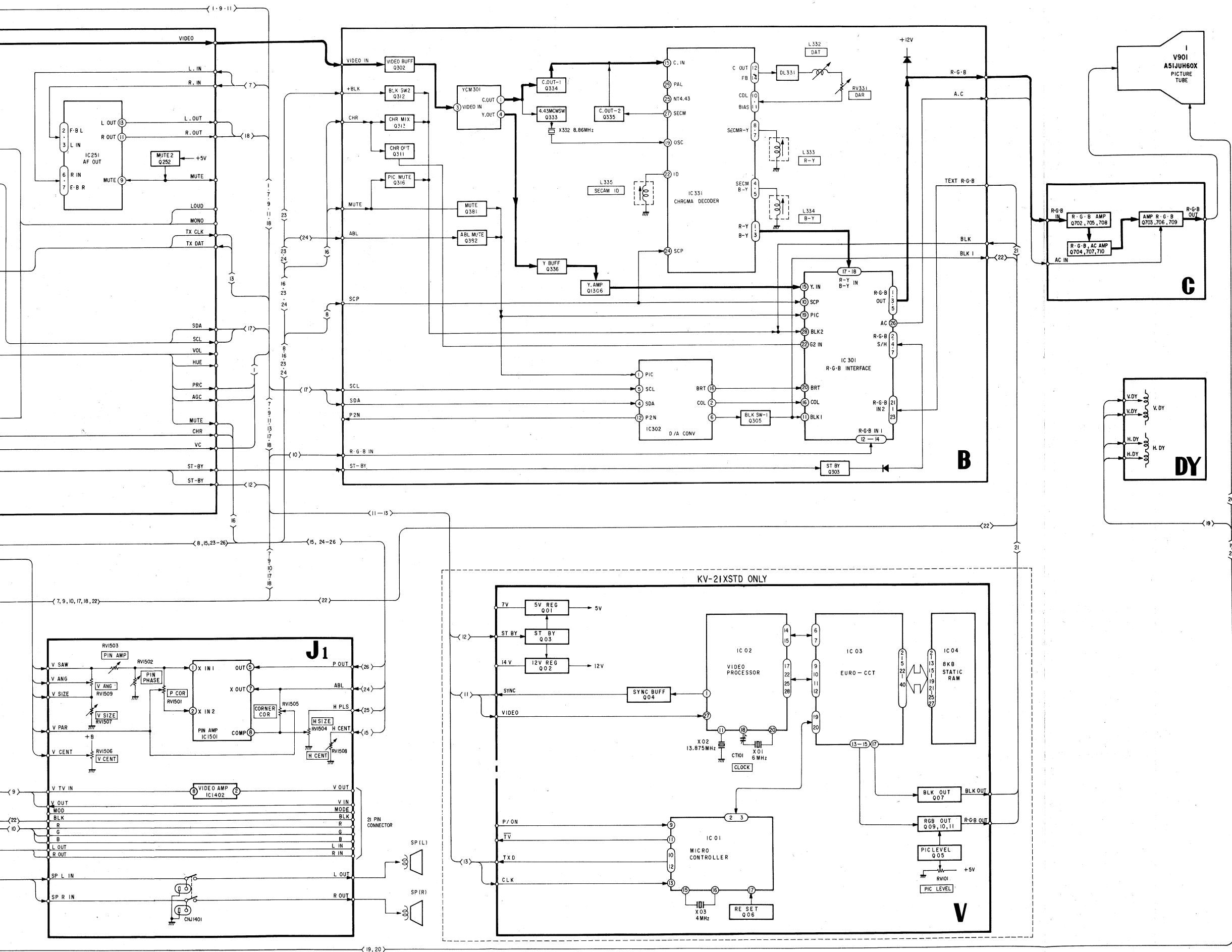
5-3. BLOCK DIAGRAM

KV-21XSD/21XSTD
RM-673

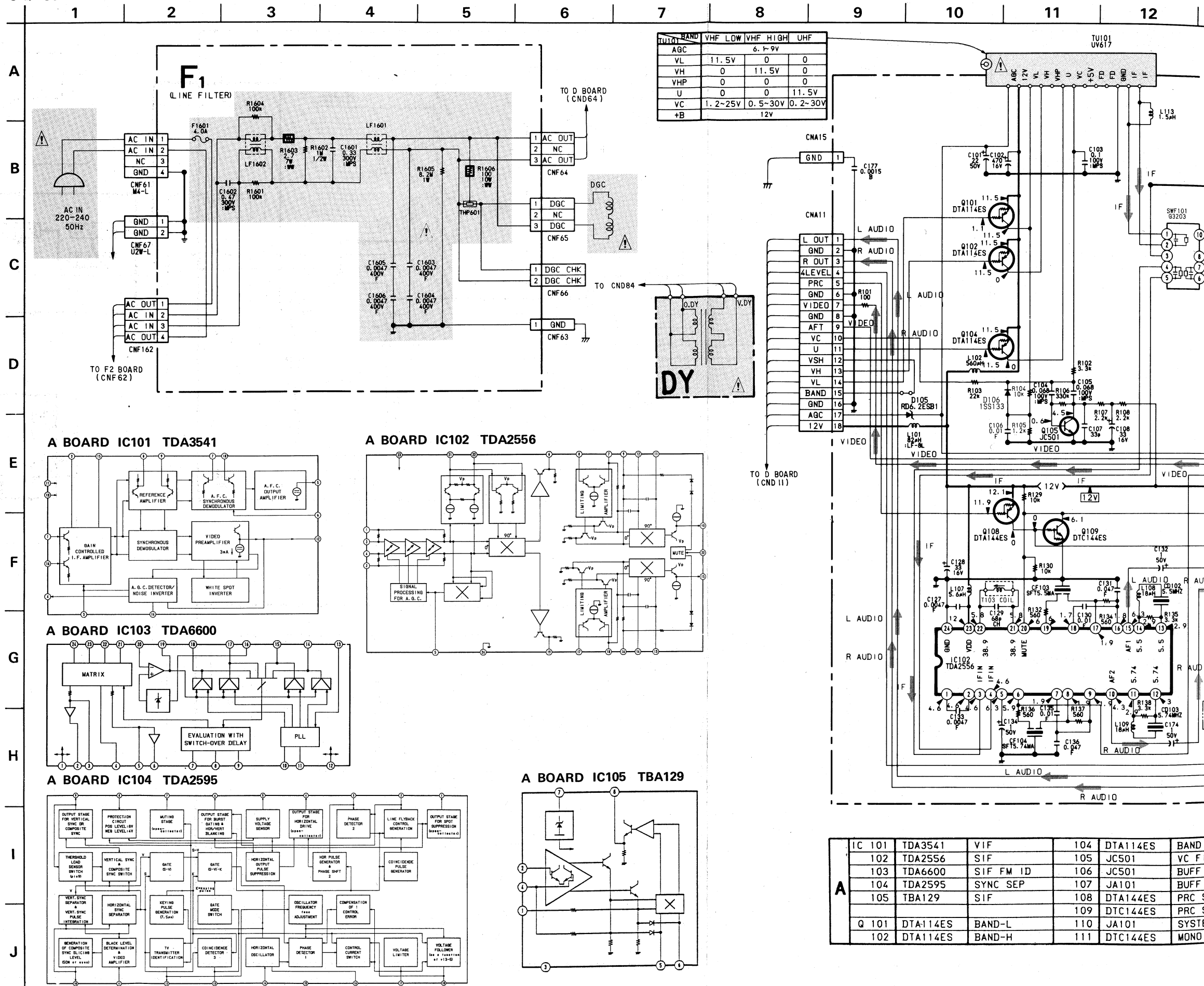
KV-21XSD/21XSTD
RM-673

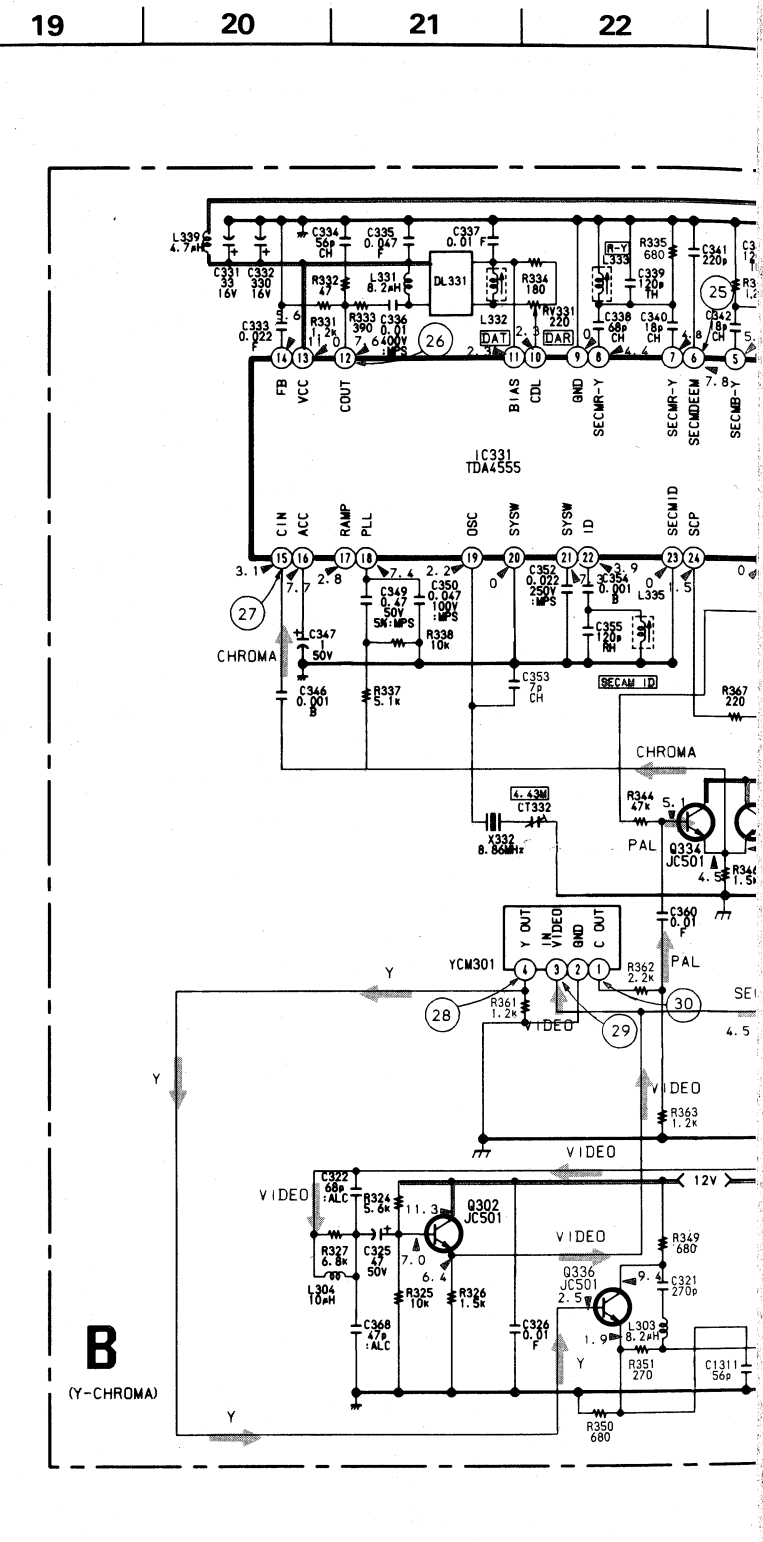




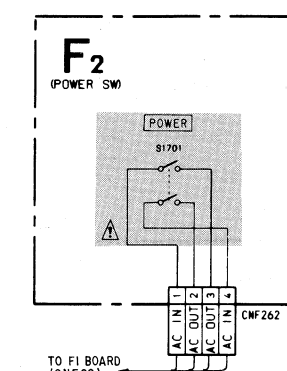


5-4. SCHEMATIC DIAGRAM (1)





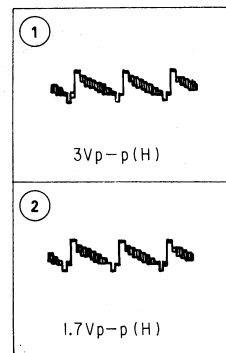
B	IC 301	TDA4580	RGB INTERFACE	313	JC501
	302	TDA8442	D/A CONVERTOR	316	JC501
	331	TDA4555	CHROMA DECODER	334	JC501
				335	JC501
	Q 302	JC501	VIDEO BUFF	336	JC501
	303	JC501	ST BY SW	381	DTC124ES
	305	DTC124ES	BLK SW-1	382	JC501
	311	JC501	CHR OUT	1306	JA101
	312	JC501	BLK SW-2		



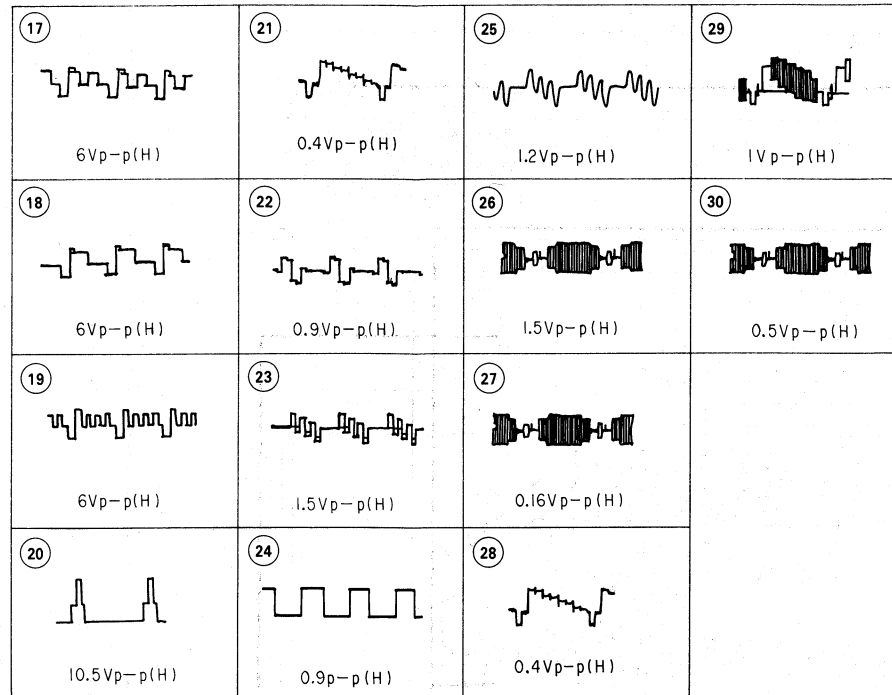
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

A

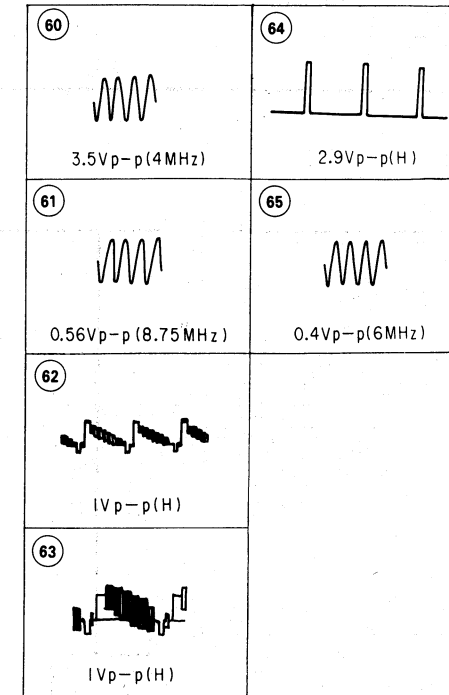
• A BOARD WAVEFORM



• B BOARD WAVEFORM

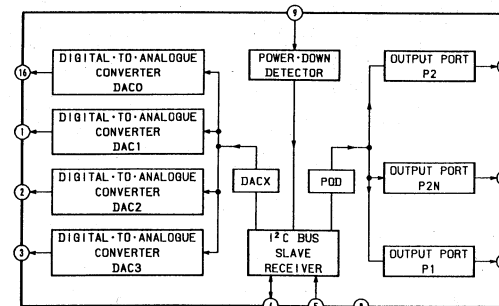


• V BOARD WAVEFORM

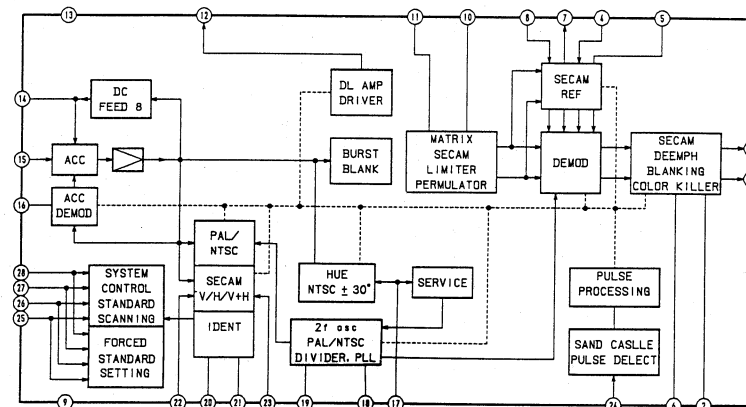


- A Board -

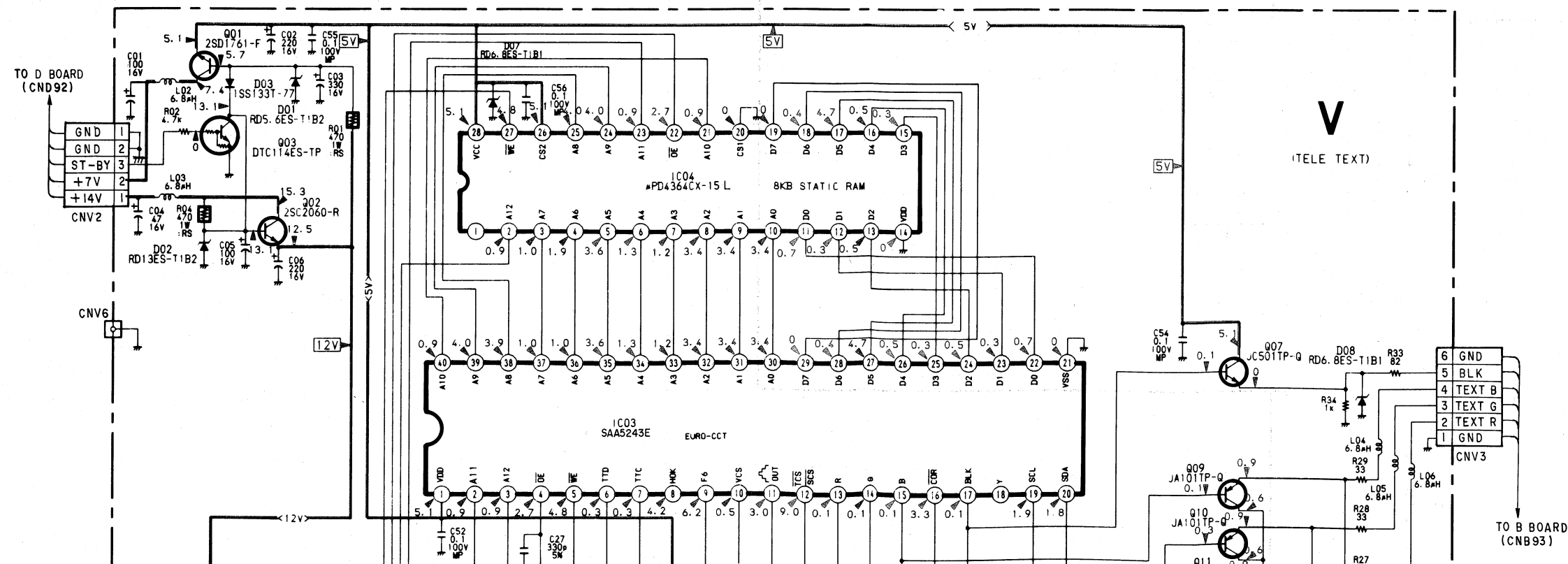
B BOARD IC302 TDA8442



B BOARD IC331 TDA4555

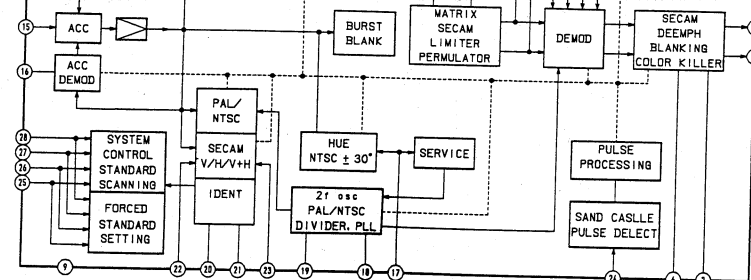


(KV-21XSTD ONLY)

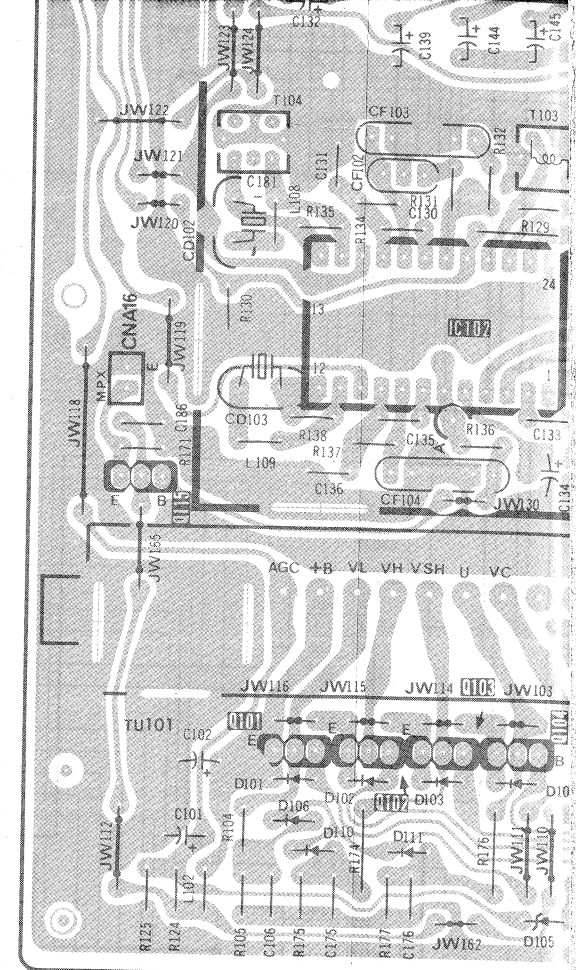
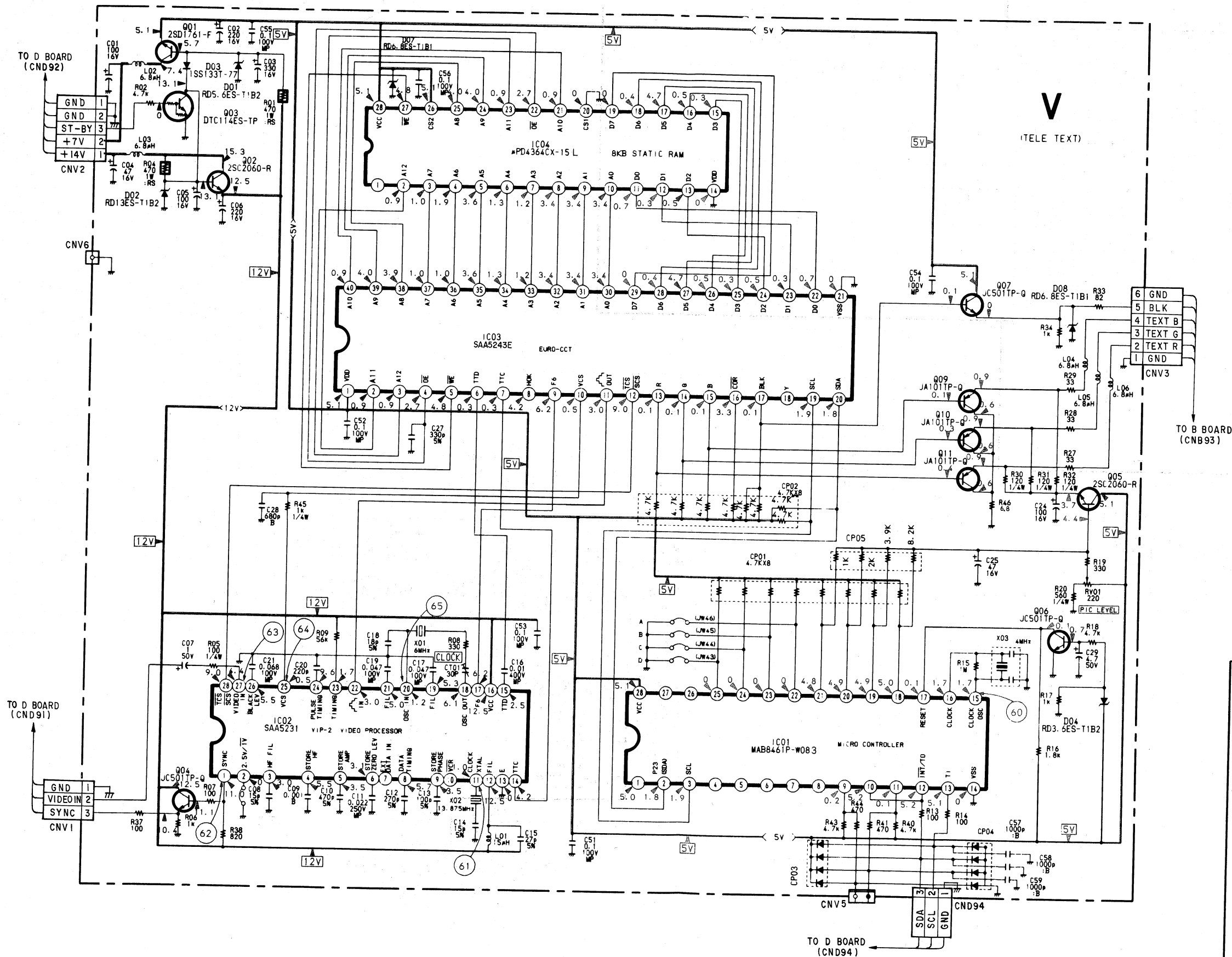


- F2 Board -

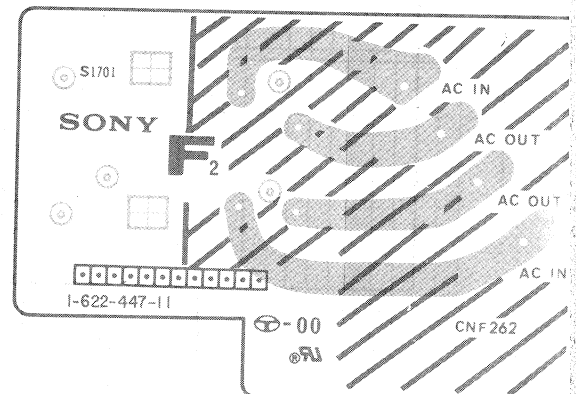
60 3.5Vp-p (4MHz)	64 2.9Vp-p (H)
61 0.56Vp-p (8.75MHz)	65 0.4Vp-p (6MHz)
62 1Vp-p (H)	
63 1Vp-p (H)	



(KV-21XSTD ONLY)

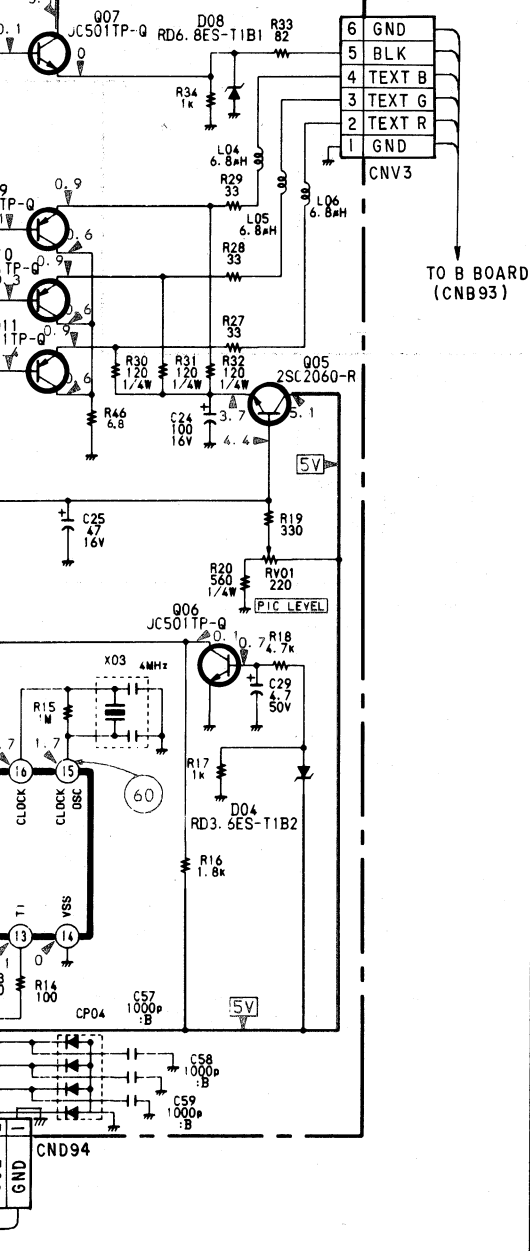


- F₂ Board -

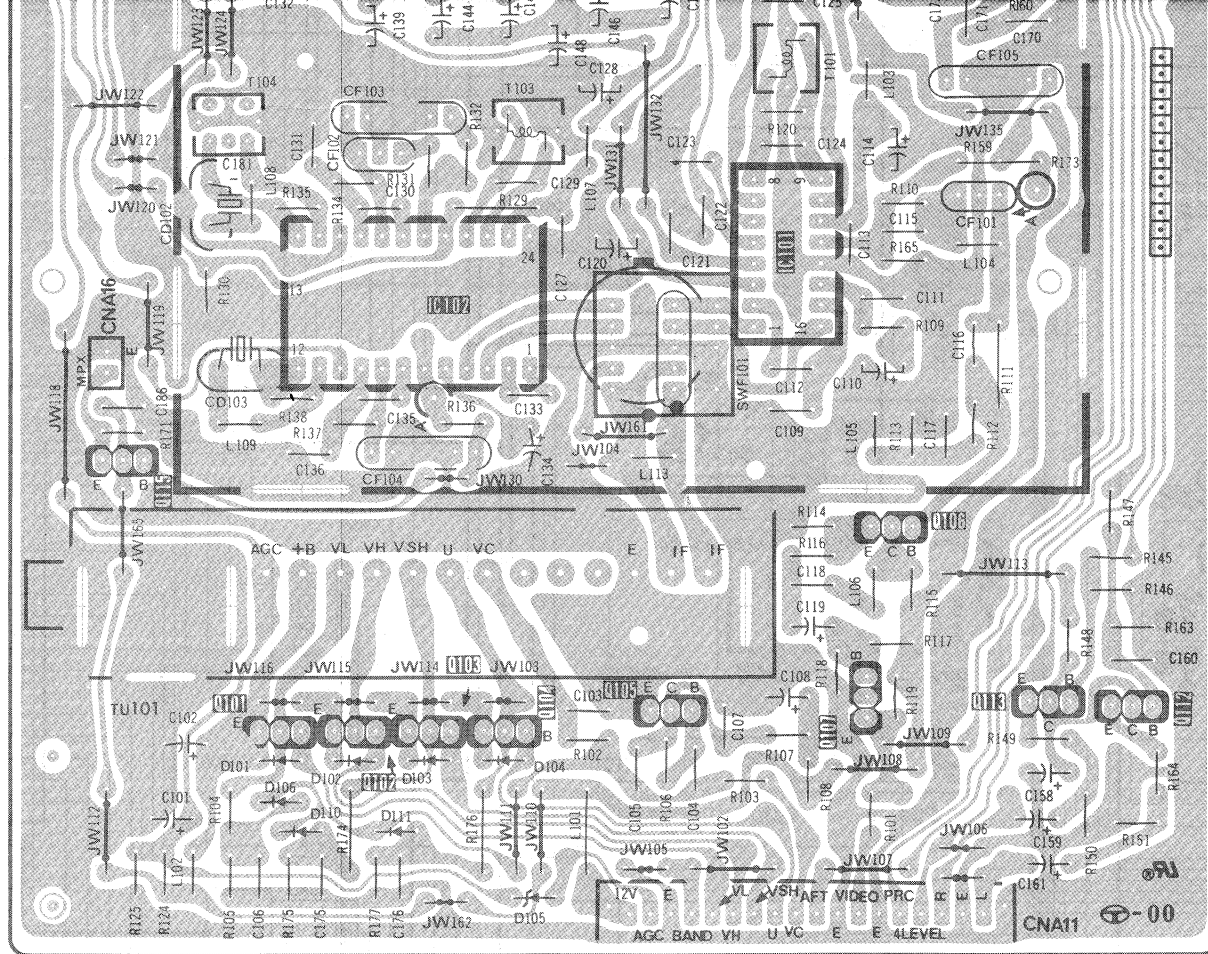


IC 01	MAB8461P-W083	MICRO CTL
02	SAAS231	VIDEO PROCESSOR
03	SAAS243E	EURO CCT
04	#PD4364CX-15L	8KB STATIC RAM
Q 01	2SD1761-F	5V REG
02	2SC2060-R	12V REG
03	DTC114ES	ST BY
04	JC501TP	SYNC BUFF
05	2SC2060-R	PIC LEVEL
06	JC501TP	RESET
07	JC501TP	BLK_OUT
09	JA101TP	B OUT
10	JA101TP	G OUT
11	JA101TP	R OUT
D 01	RD5.6ES-B2	5V REG
02	RD13ES-B2	12V REG
03	1SS133	ST BY
04	RD3.6ES-B2	RESET
07	RD6.8ES-B1	PROTECT-1
08	RD6.8ES-B1	PROTECT-2

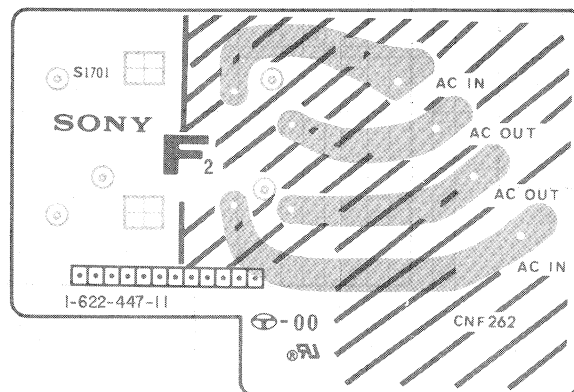
V
(TELE TEXT)



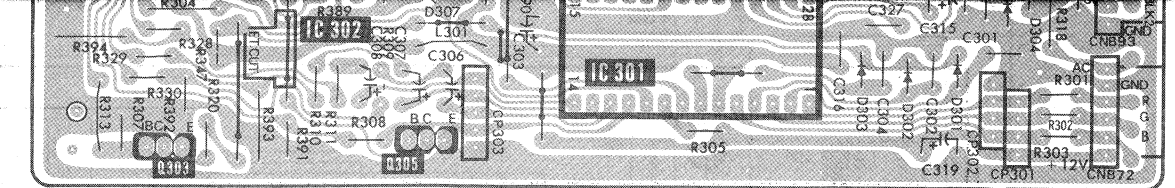
TO B BOARD
(CNB93)



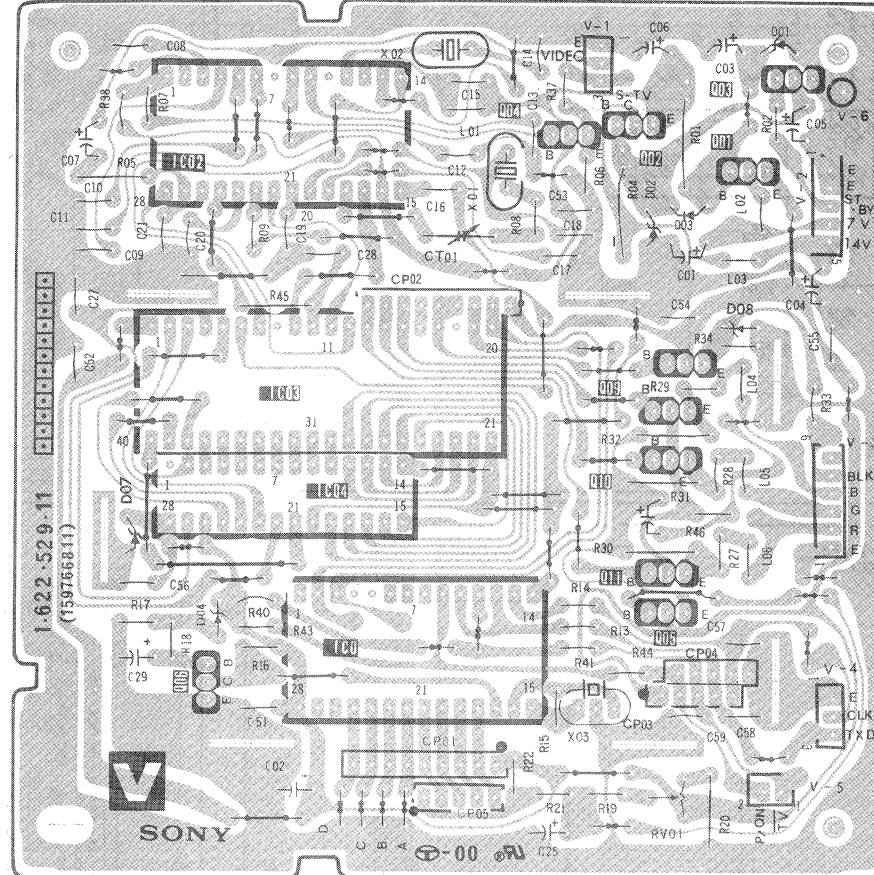
— F₂ Board —



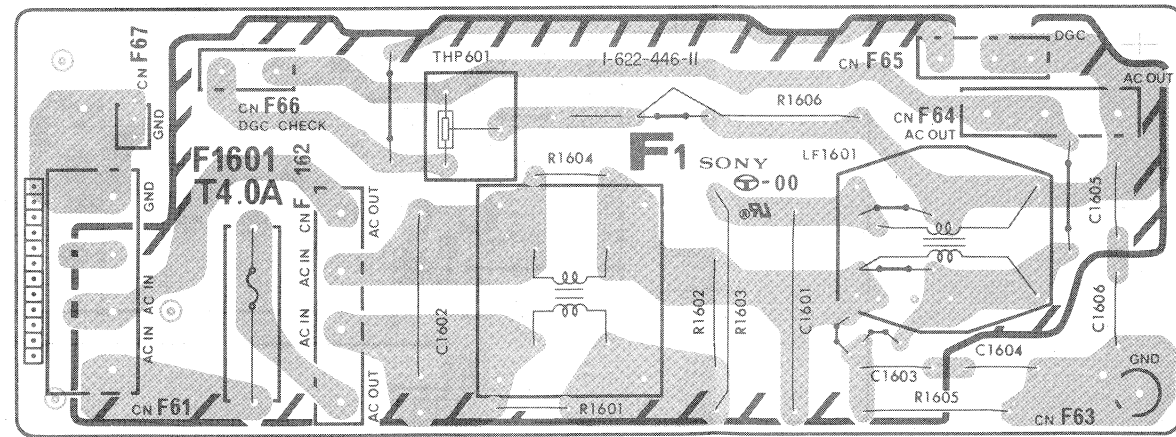
IC 01	MAB8461P-W083	MICRO CTL
02	SAA5231	VIDEO PROCESSOR
03	SAA5243E	EURO CCT
04	μPD4364CX-15L	8KB STATIC RAM
Q 01	2SD1761-F	5V REG
02	2SC2060-R	12V REG
03	DTC114ES	ST BY
04	JC501TP	SYNC BUFF
05	2SC2060-R	PIC LEVEL
06	JC501TP	RESET
07	JC501TP	BLK OUT
09	JA101TP	B OUT
10	JA101TP	G OUT
11	JA101TP	R OUT
D 01	RD5.6ES-B2	5V REG
02	RD13ES-B2	12V REG
03	1SS133	ST BY
04	RD3.6ES-B2	RESET
07	RD6.8ES-B1	PROTECT-1
08	RD6.8ES-B1	PROTECT-2



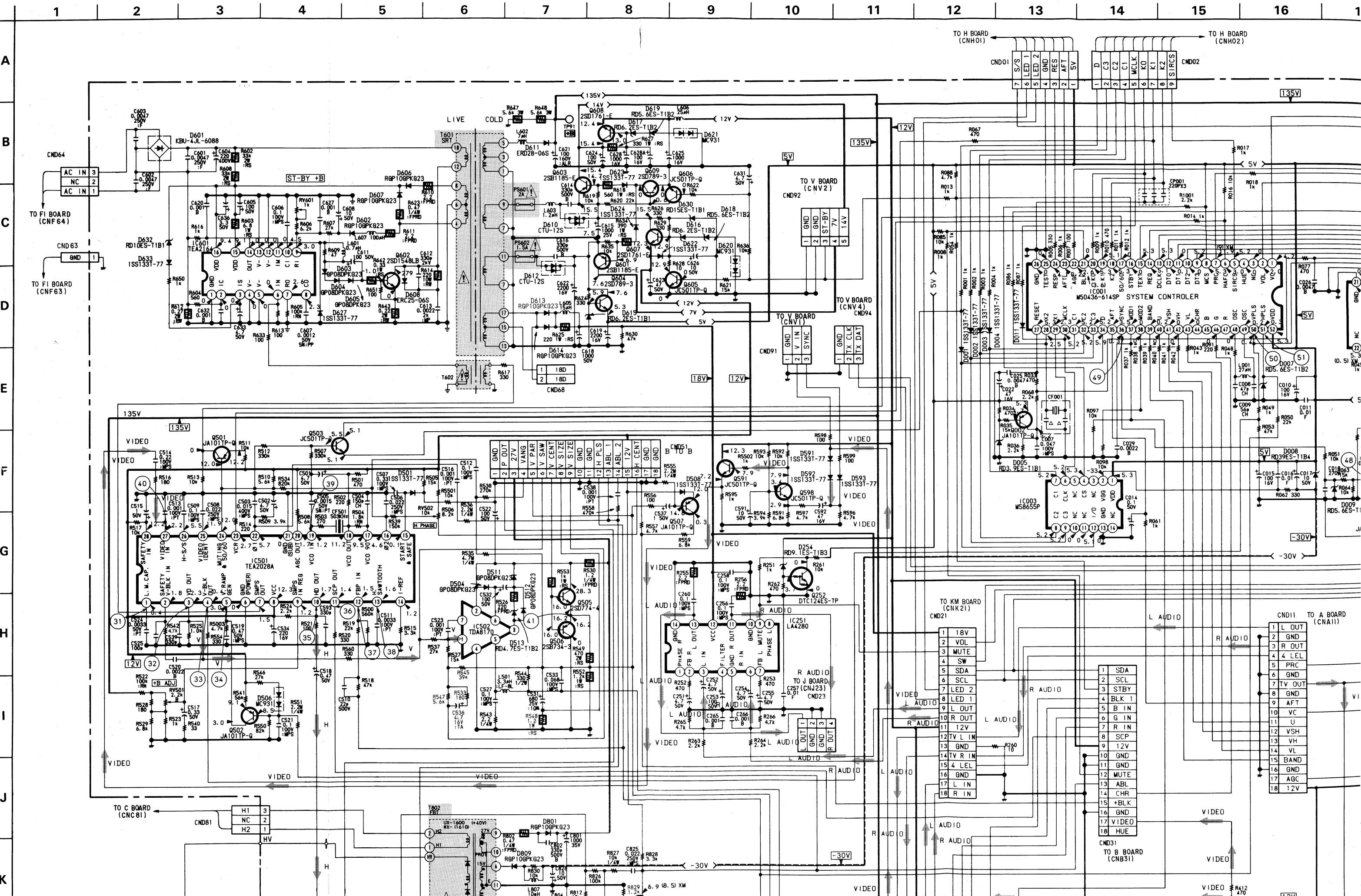
— V Board — (KV-21XSTD ONLY)

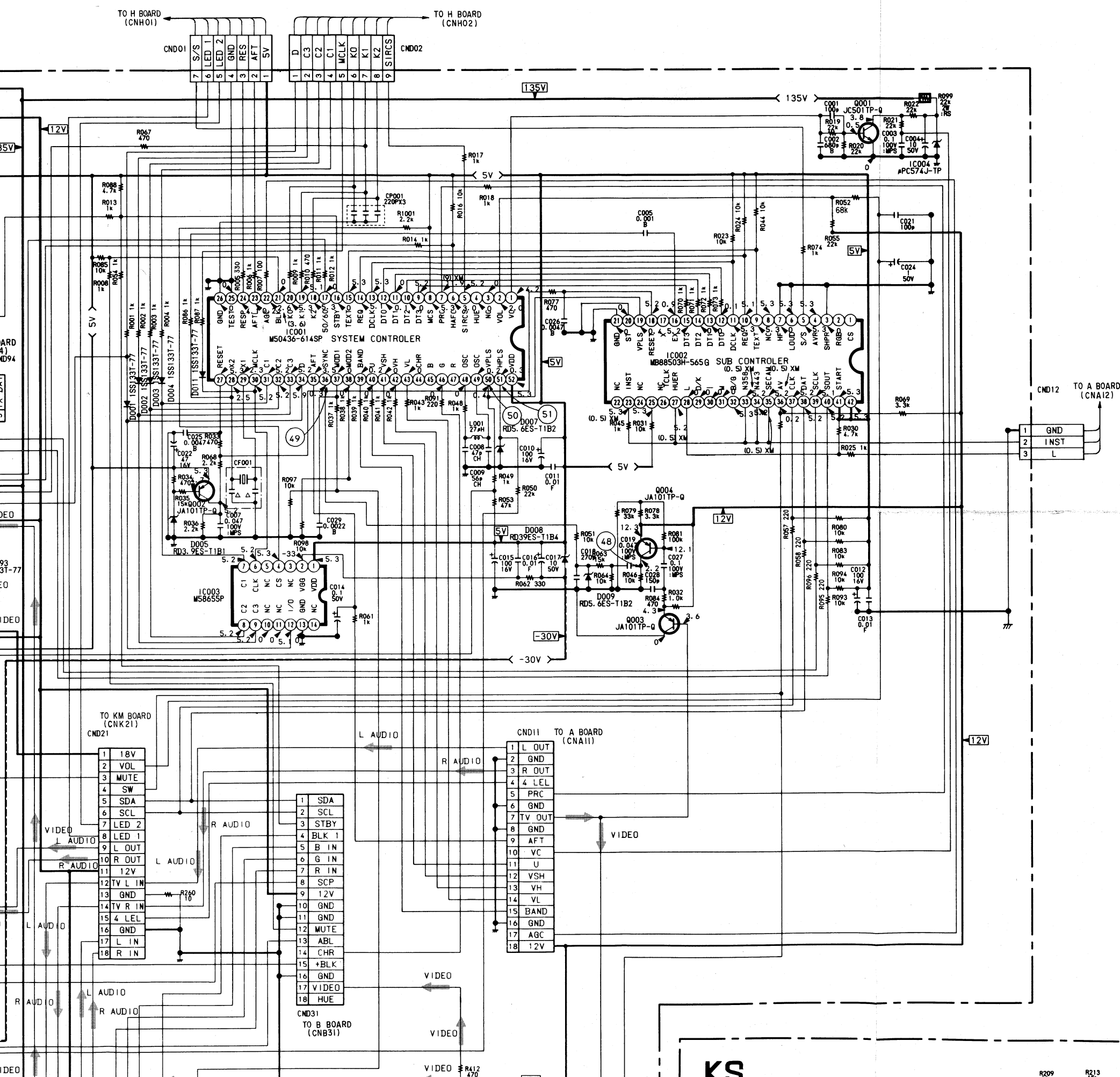


— F₁ Board —

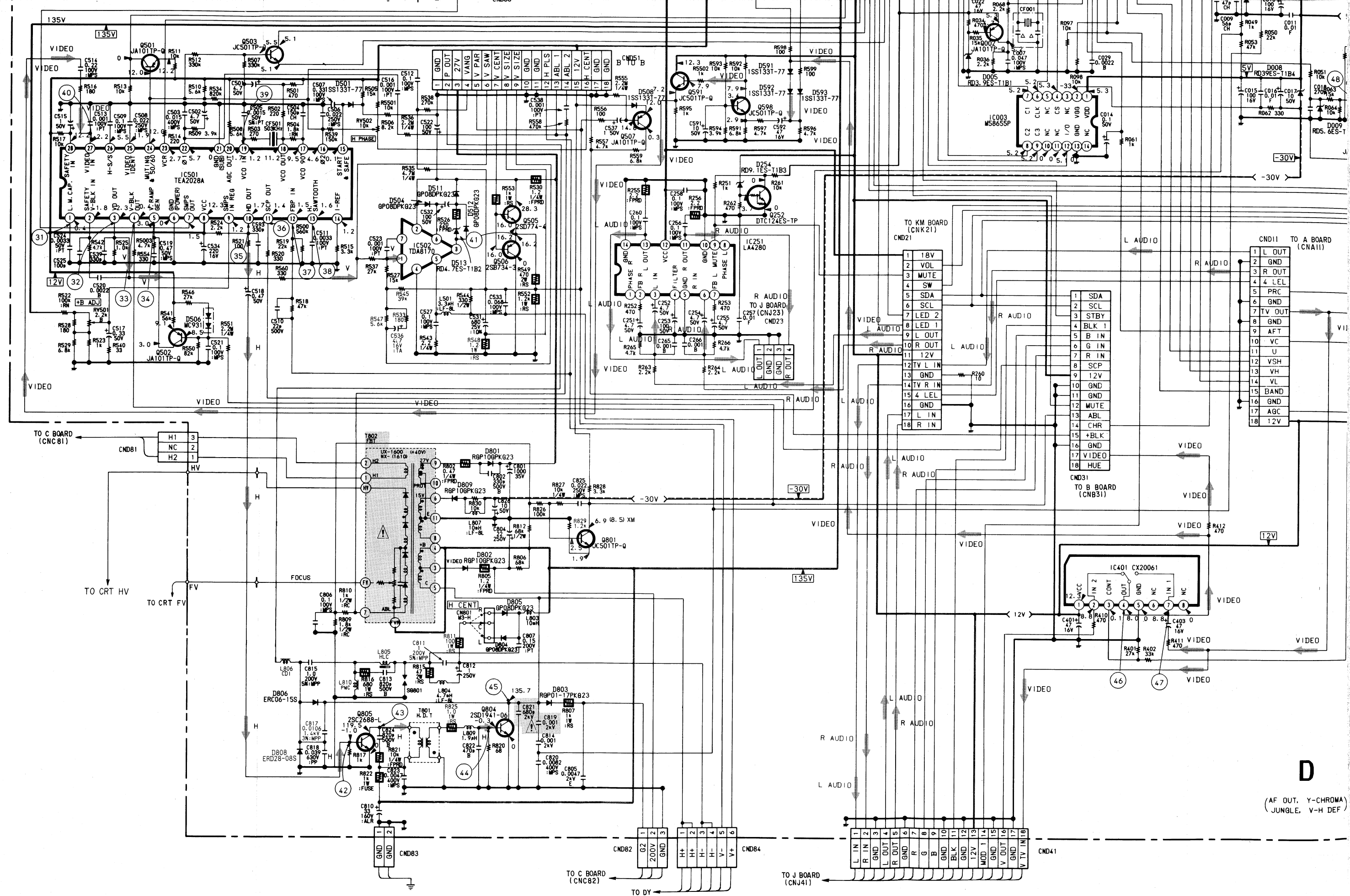


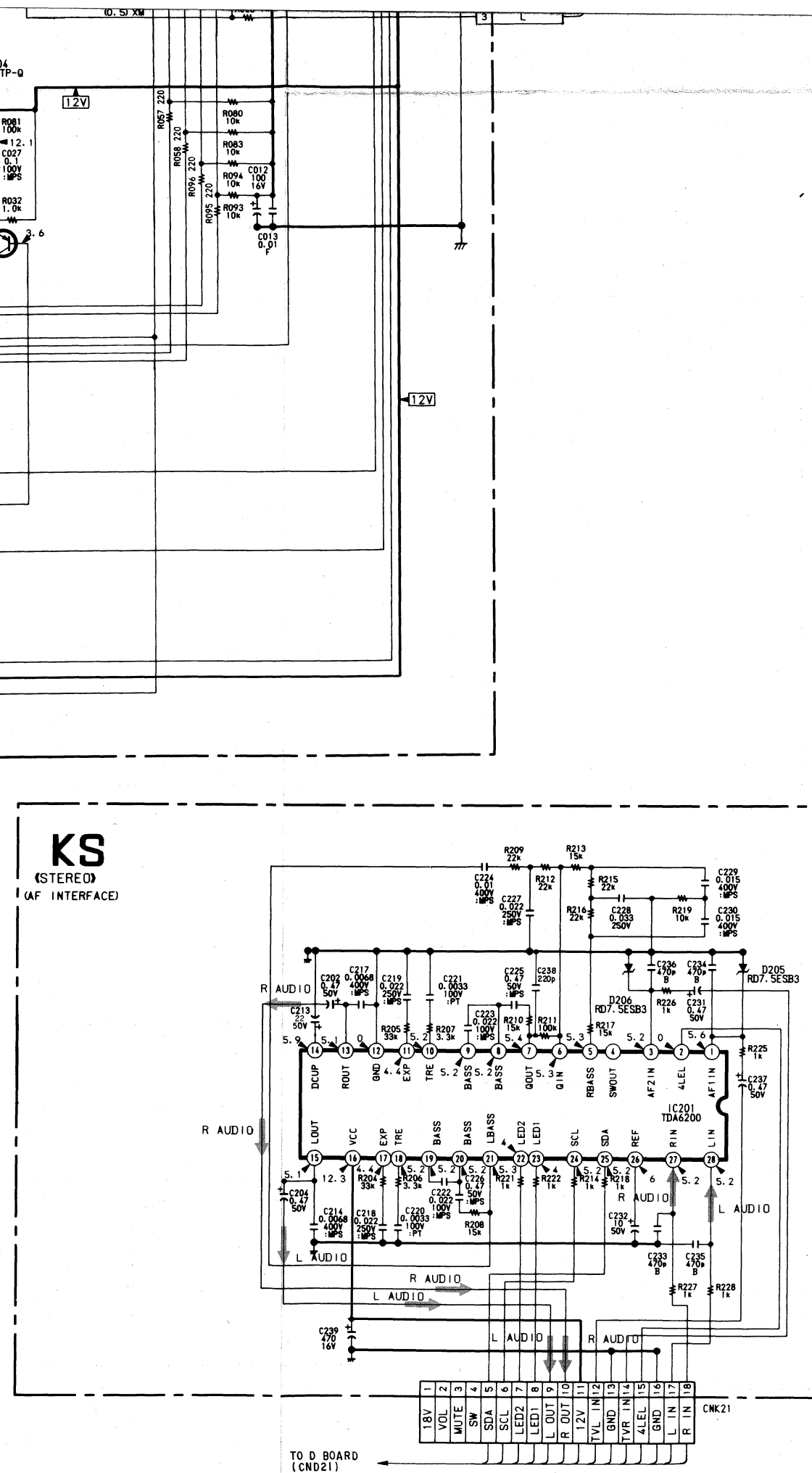
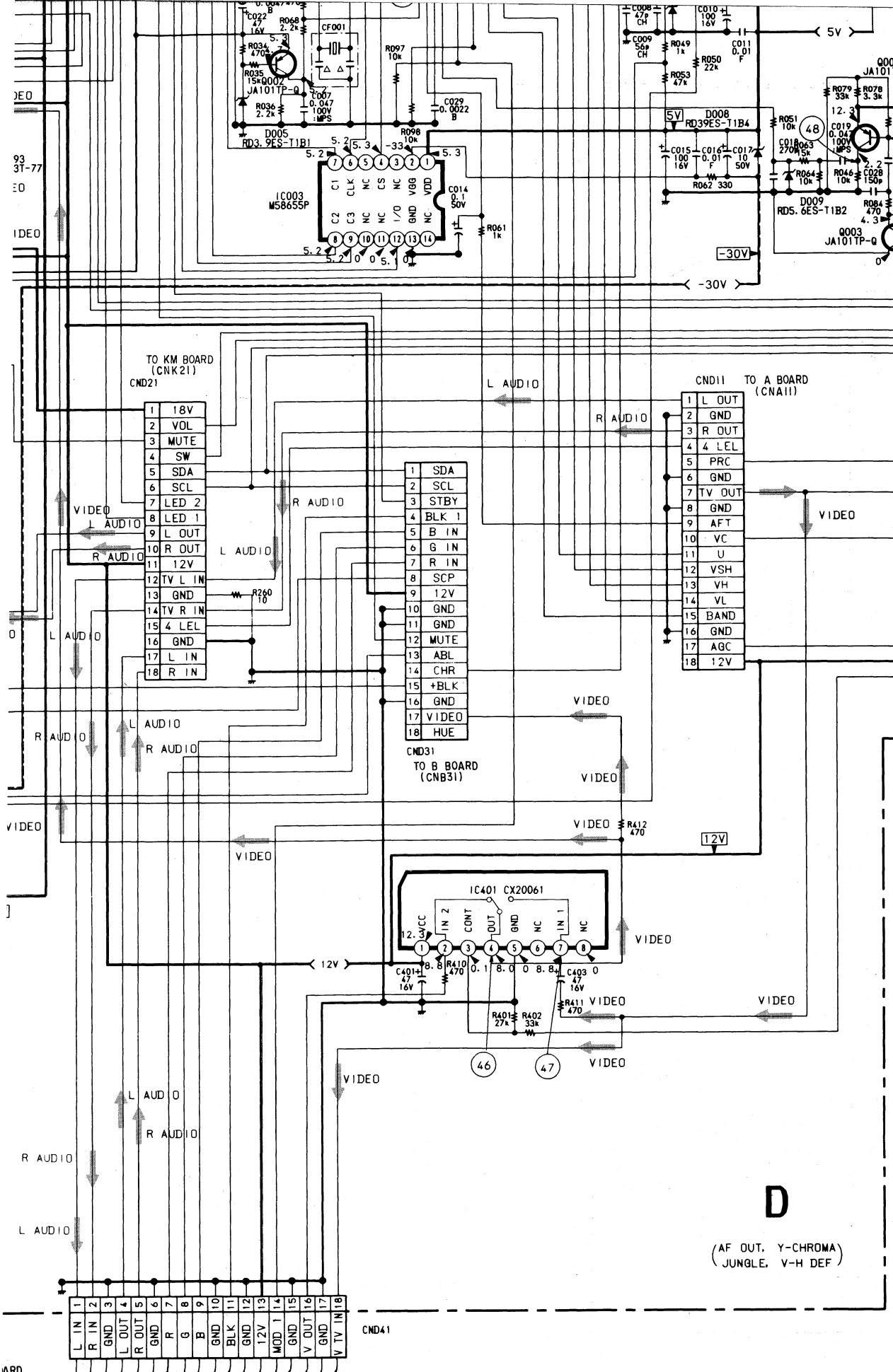
SCHEMATIC DIAGRAM (2)





IC 001	M50436-614SP	TUNING CTL
002	MB88503H-565G	SYSTEM CTL
003	M58655P	MEMORY
004	PC574J	REG
251	LA4280	AF OUT
401	CX20061	VIDEO SW
501	TEA2028A	JUNGLE
502	TDA8170	V OUT
601	TEA2164	POWER CTL
Q 001	JC501	VC AMP
002	JA101	RESET
003	JA101	VIDEO BUFF
004	JA101	SYNC SEP
252	DTC124ES	MUTE
501	JA101	50/60 SW
502	JA101	V SAW
503	JC501	SYNC DET
505	2SD774-4	V CENT-1
506	2SD734-3	V CENT-2
507	JA101	VLK SW
591	JC501	SYNC SW
598	JC501	SYNC AMP
601	2SB1185-E	ST BY SW-1
602	2SD1548	REG OUT
603	2SB1185-E	ST BY SW-2
604	2SD789-03	+5V REG
605	JC501	ST BY SW-3
606	JC501	ST BY SW-4
607	2SD1761-E	+12V REG-1
608	2SD1761-E	+12V REG-2
609	2SD789-03	ST BY SW-5
801	JC501	ABL AMP
804	2SD1941-06	H OUT
805	2SC2688-L	H DRIVE
D 001	1SS133	KEY SCAN-1
002	1SS133	KEY SCAN-2
003	1SS133	KEY SCAN-3
004	1SS133	KEY SCAN-4
005	RD3.9ES-B1	PROTECT-1
007	RD5.6ES-B2	PROTECT-2
008	RD39ES-B4	39V ZENER
009	RD5.6ES-B2	PROTECT-3
011	1SS133	KEY SCAN-5
254	RD9.1ES-B3	10V ZENER
501	1SS133	SOFT START
504	GP08DPKG23	PONP UP
506	MC931	PROTECT-4
508	1SS133	BLK SW
511	GP08DPKG23	PROTECT-11
512	GP08DPKG23	PROTECT-12
591	1SS133	SYNC SW-1
592	1SS133	SYNC SW-2
593	1SS133	SYNC SW-3
601	KBU4JL-6088	AC RECT
602	RGP10GPKG23	PROTECT-5
603	GP08DPKG23	REG DRIVE-1
604	GP08DPKG23	REG DRIVE-2
605	GP08DPKG23	REG DRIVE-3
606	RGP10GPKG23	REF RECT-1
607	RGP10GPKG23	REF RECT-2
608	ERC25-06S	PULSE CLIPPER
610	CTU-12S	+14V RECT
611	ERD28-06S	+135V RECT
612	CTU-12S	+7V RECT
613	RGP10GPKG23	AF RECT
614	RGP10GPKG23	AF RECT
615	RD6.2ES-B1	REG-4
616	RD6.2ES-B2	REG-1
617	RD6.2ES-B2	REG-2
618	RD5.6ES-B2	REG-3
619	RD5.6ES-B2	REG-3
620	MC931	PROTECT-6
621	MC931	PROTECT-7
622	1SS133	PROTECT-8
623	1SS133	STBY SW-1

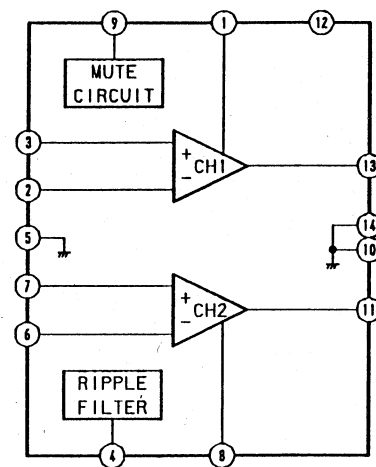




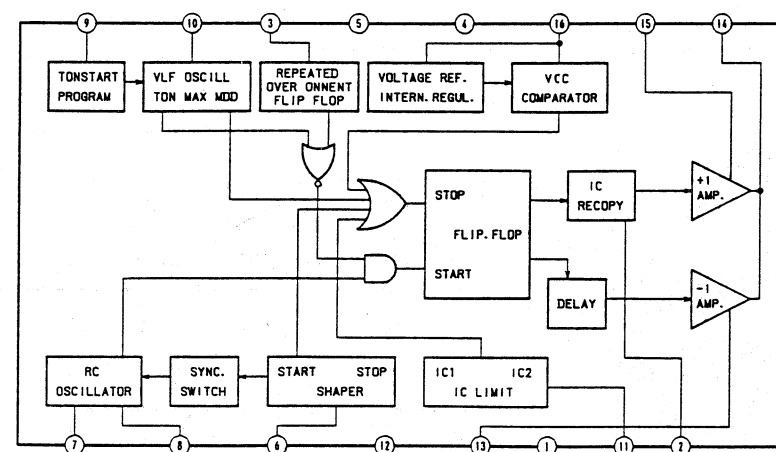
801	JC501	ABL AMP
804	2SD1941-06	H OUT
805	2SC2688-L	H DRIVE
D 001	1SS133	KEY SCAN-1
002	1SS133	KEY SCAN-2
003	1SS133	KEY SCAN-3
004	1SS133	KEY SCAN-4
005	RD3.9ES-B1	PROTECT-1
007	RD5.6ES-B2	PROTECT-2
008	RD39ES-B4	39V ZENER
009	RD5.6ES-B2	PROTECT-3
011	1SS133	KEY SCAN-5
254	RD9.1ES-B3	10V ZENER
501	1SS133	SOFT START
504	GP08DPKG23	PONP UP
506	MC931	PROTECT-4
508	1SS133	BLK SW
511	GP08DPKG23	PROTECT-11
512	GP08DPKG23	PROTECT-12
591	1SS133	SYNC SW-1
592	1SS133	SYNC SW-2
593	1SS133	SYNC SW-3
601	KBU4JL-6088	AC RECT
602	RGP10GPKG23	PROTECT-5
603	GP08DPKG23	REG DRIVE-1
604	GP08DPKG23	REG DRIVE-2
605	GP08DPKG23	REG DRIVE-3
606	RGP10GPKG23	REF RECT-1
607	RGP10GPKG23	REF RECT-2
608	ERC25-06S	PULSE CLIPPER
610	CTU-12S	+14V RECT
611	ERD28-06S	+135V RECT
612	CTU-12S	+7V RECT
613	RGP10GPKG23	AF RECT
614	RGP10GPKG23	AF RECT
615	RD6.2ES-B1	REG-4
616	RD6.2ES-B2	REG-1
617	RD6.2ES-B2	REG-2
618	RD5.6ES-B2	REG-3
619	RD5.6ES-B2	REG-3
620	MC931	PROTECT-6
621	MC931	PROTECT-7
622	1SS133	PROTECT-8
623	1SS133	STBY SW-1
624	1SS133	STBY SW-2
627	1SS133	PROTECT-9
630	RD15ES-B1	REG
632	RD10ES-B1	PROTECT
633	1SS133	PROTECT
801	RGP10GPKG23	27V RECT
802	RGP10GPKG23	200V RECT
803	RGP01-17PKG23	G2 RECT
804	GP08DPKG23	H CENT-1
805	GP08DPKG23	H CENT-2
806	ERC06-15S	H DANPER-1
808	ERD29-08J	PIN DANPER
809	RGP10GPKG23	-30V RECT

IC 201	TDA6200	AF INTERFACE
D 205	RD7.5ES-B3	PROTECT
206	RD7.5ES-B3	PROTECT

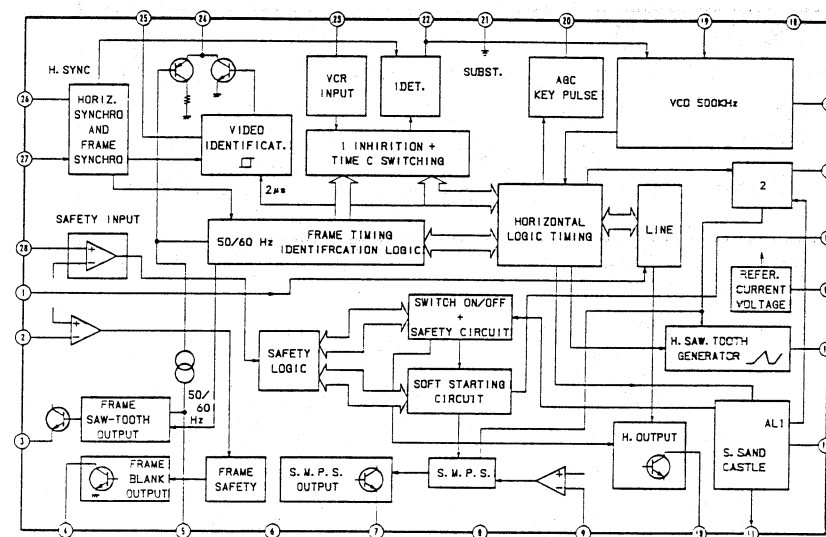
D BOARD IC251 LA4280



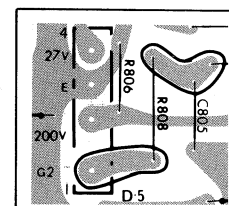
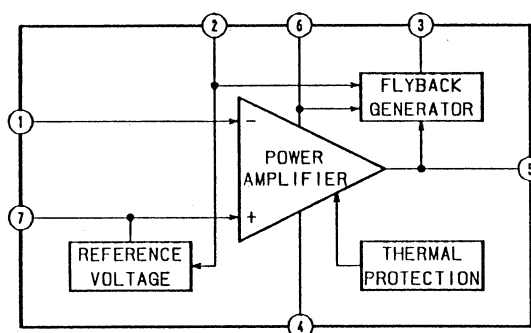
D BOARD IC601 TEA2164



D BOARD IC501 TEA2028A

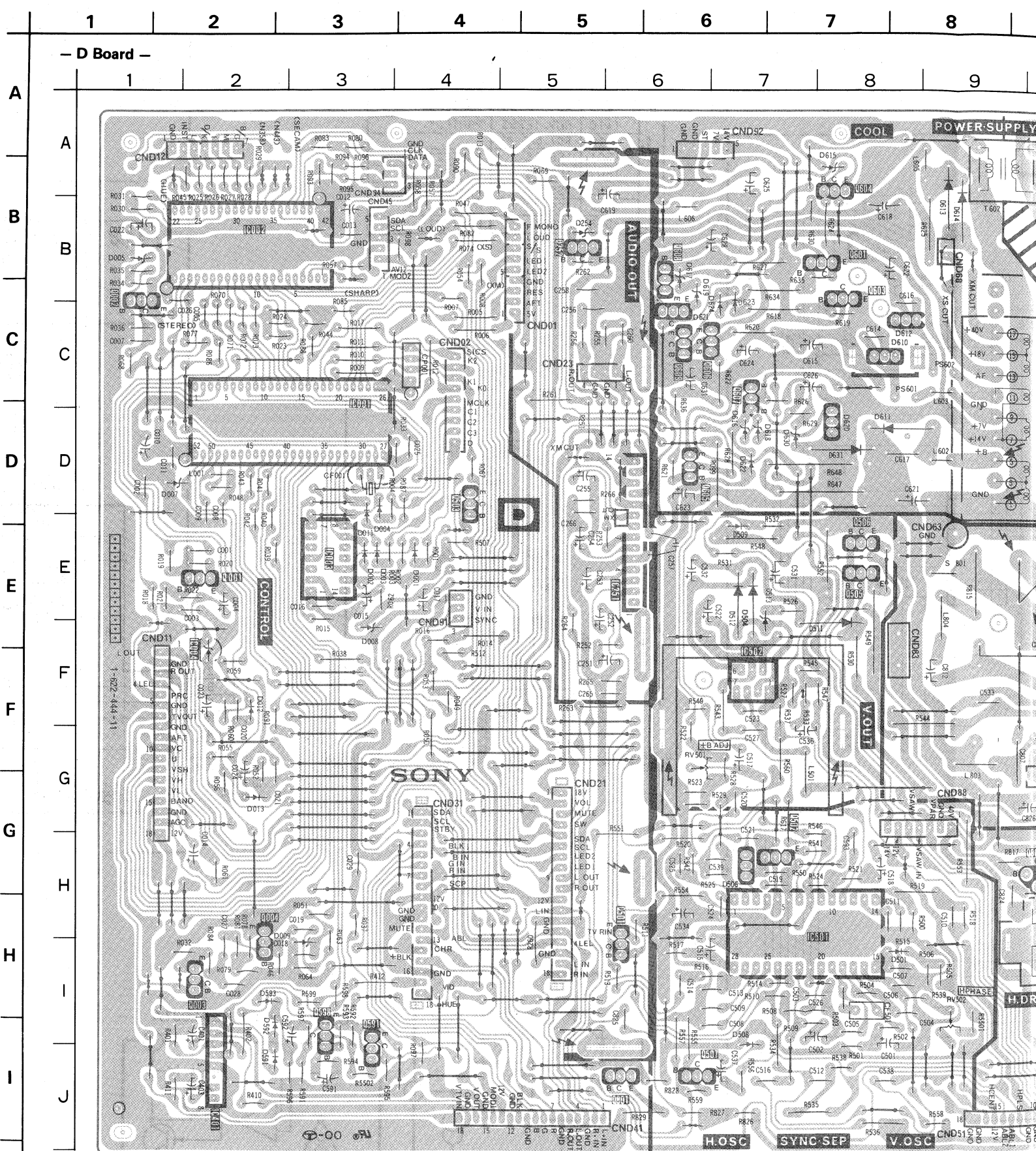


D BOARD IC502 TDA8170

**NOTE:**

The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.

PRINTED WIRING BOARDS (2)



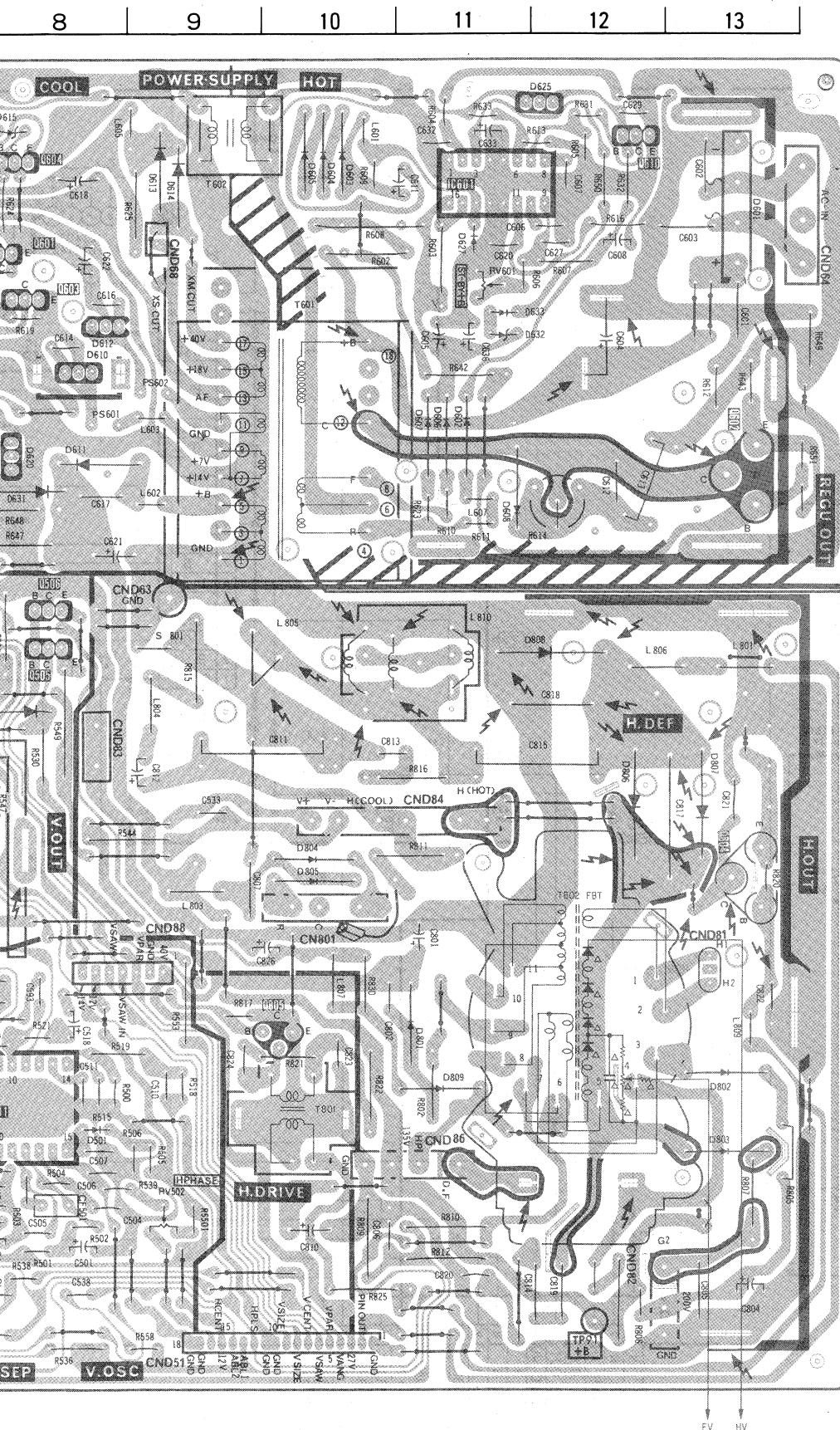
[AF OUT, Y-CHROMA
JUNGLE, V-H DEF]

D

KS

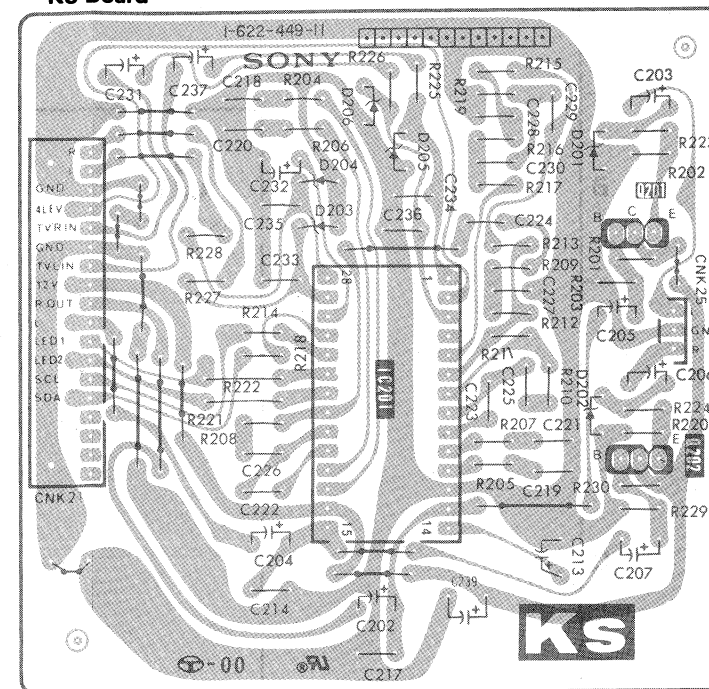
[STEREO]

7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23

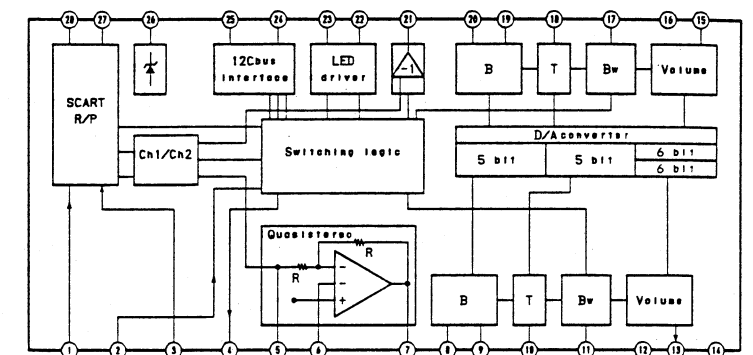


IC		DIODE	
IC001	D-3	D001	F-4
IC002	B-2	D002	F-3
IC003	F-2	D003	F-3
IC004	F-2	D004	D-3
IC251	E-6	D005	B-1
TRANSISTOR			
Q001	E-2	D007	D-1
Q002	B-1	D008	F-3
Q003	I-2	D009	I-3
Q004	H-2	D011	E-3
Q252	B-6	D013	G-2
Q501	H-6	D254	B-5
Q502	H-7	D501	I-8
Q503	D-4	D504	E-7
Q505	E-8	D506	H-7
Q506	E-8	D508	I-7
Q507	J-6	D511	F-8
Q591	I-3	D512	F-7
Q598	I-3	D513	F-7
Q601	B-8	D591	J-2
Q602	D-13	D592	I-2
Q603	B-8	D593	I-2
Q604	A-8	D601	B-13
Q605	D-6	D602	O-11
Q606	O-6	D603	A-10
Q607	O-7	D604	A-10
Q608	B-6	D605	A-10
Q609	O-6	D606	C-11
Q801	J-6	D607	O-11
Q804	G-13	D608	D-11
Q805	H-10	D610	O-8
VARIABLE RESISTOR			
RV501	G-6	D611	D-8
RV502	I-9	D612	C-8
RV601	B-11	D613	A-9
		D614	B-9
		D615	A-8
		D616	D-7
		D617	B-6
		D618	D-7
		D619	B-6
		D620	D-8
		D621	C-6
		D622	D-7
		D623	O-7
		D624	O-7
		D627	B-11
		D630	D-7
		D632	C-11
		D633	C-11
		D801	H-11
		D802	H-13
		D803	I-13
		D804	G-10
		D805	G-10
		D806	T-12
		D808	E-12
		D809	H-11

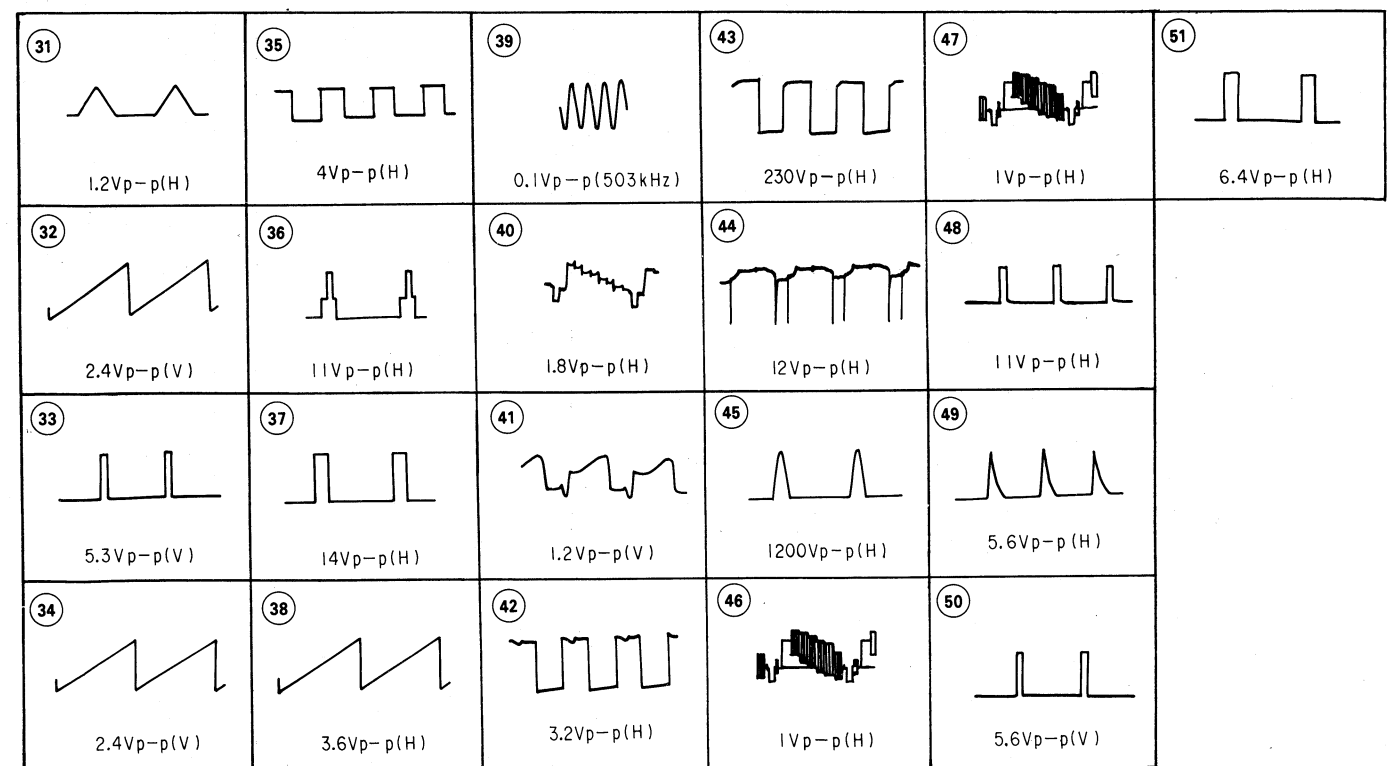
- KS Board -



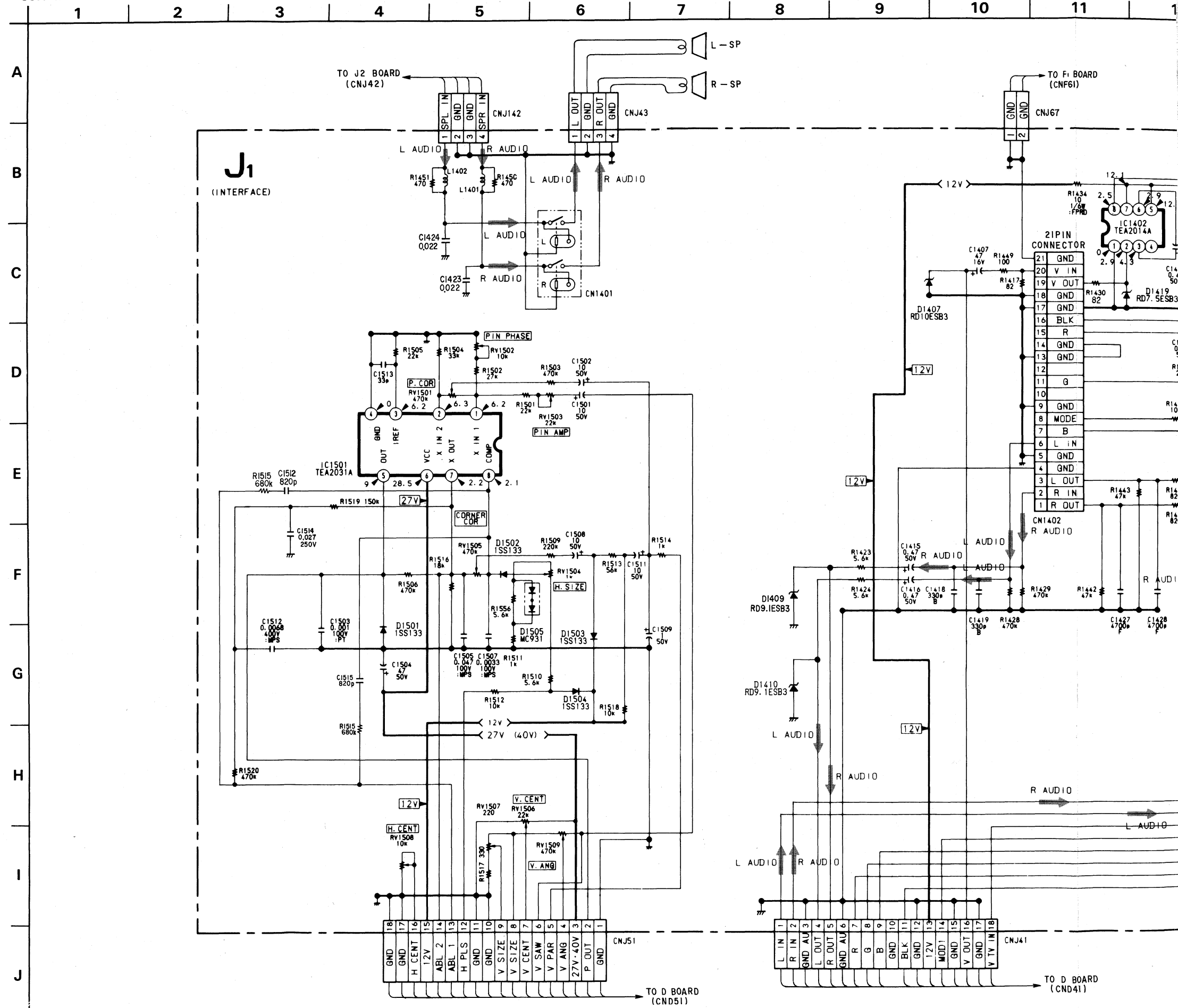
KS BOARD IC201 TDA6200

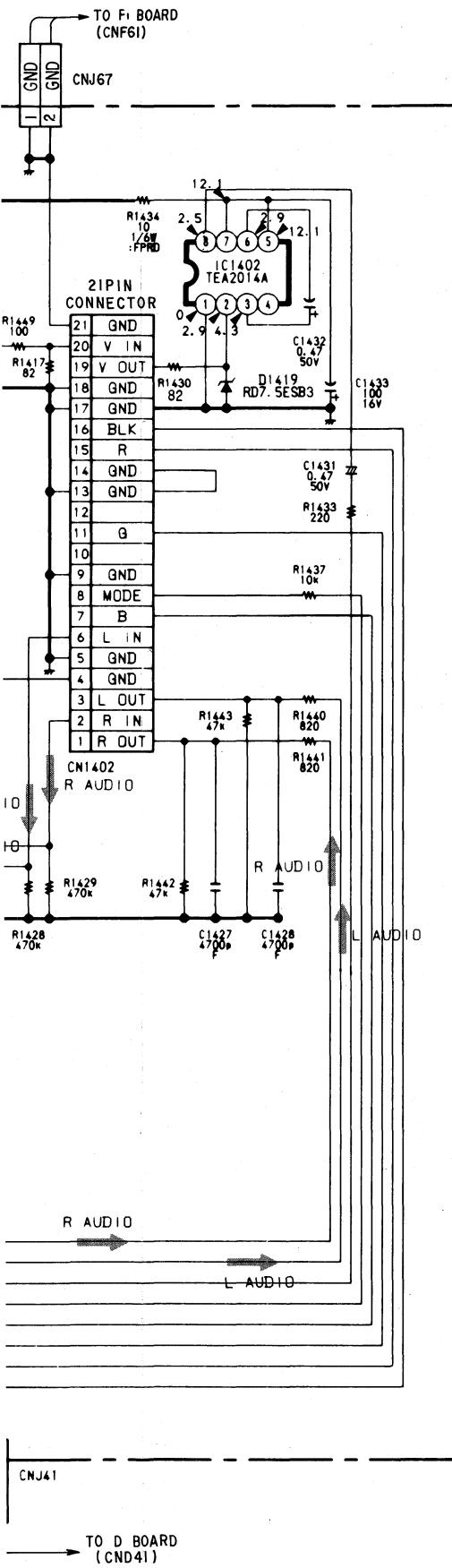


• D BOARD WAVEFORM

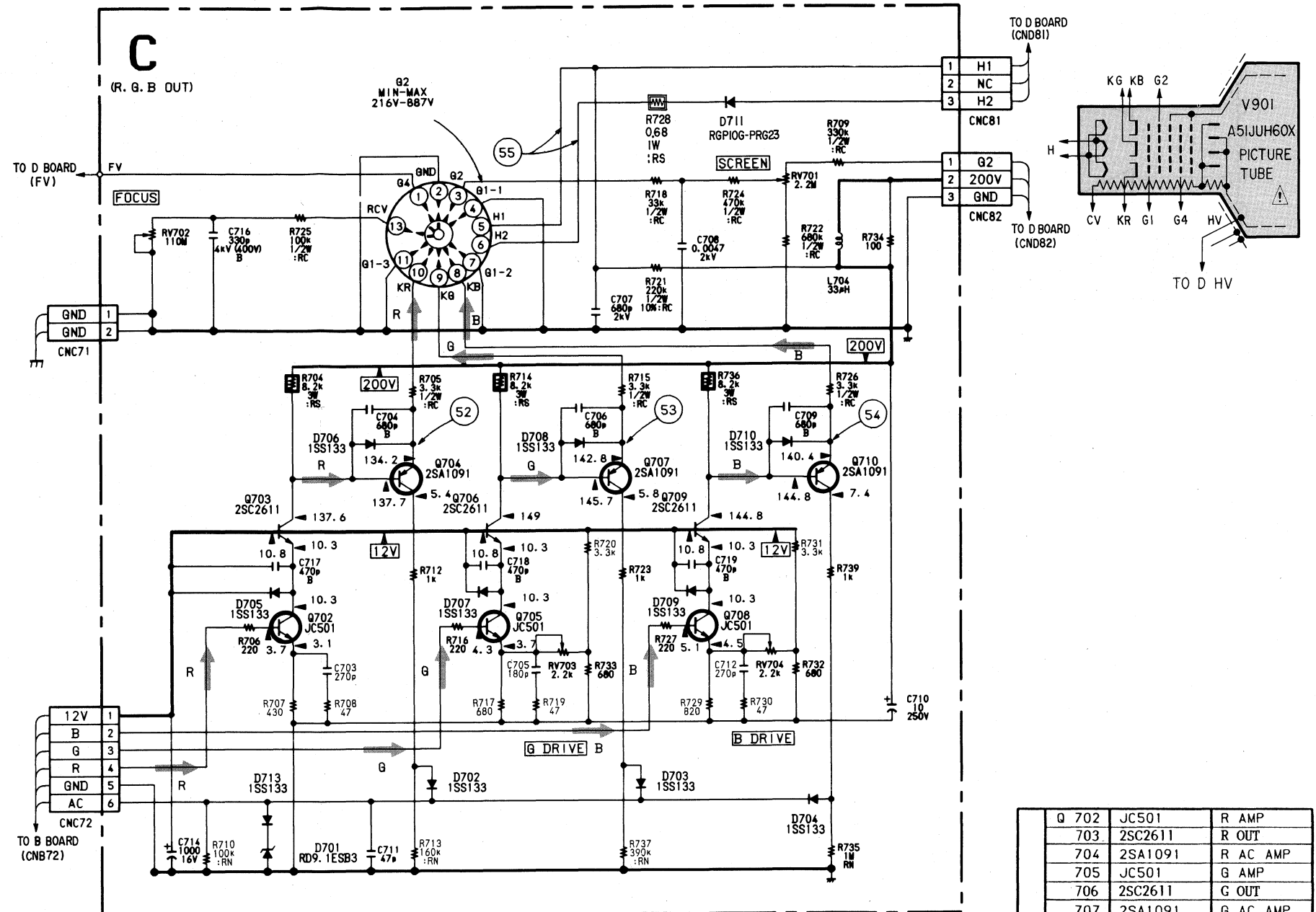
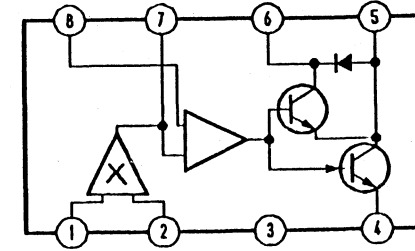
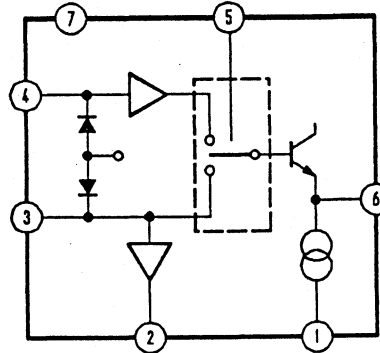
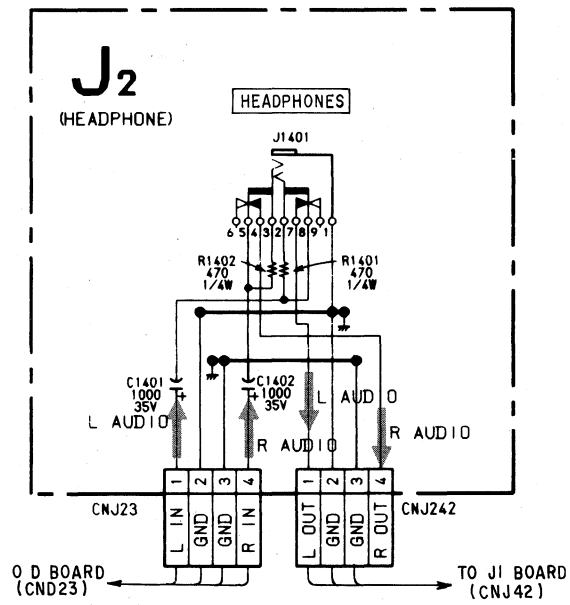


SCHEMATIC DIAGRAM (3)





J ₁	IC1402	TEA2014A	VIDEO SWITCHING
	1501	TEA2031A	PIN AMP
	D1407	RD10ESB3	PROTECT
	1409	RD9.1ESB3	PROTECT
	1410	RD9.1ESB3	PROTECT
	1419	RD7.5ES-B3	
	1501	1SS133	PROTECT
	1502	1SS133	DC STOP
	1503	1SS133	CORNER CORRECT
	1504	1SS133	H.P. SLICER
	1505	MC931	PROTECT



C	Q 702	JC501	R AMP
	703	2SC2611	R OUT
	704	2SA1091	R AC AMP
	705	JC501	G AMP
	706	2SC2611	G OUT
	707	2SA1091	G AC AMP
	708	JC501	B AMP
	709	2SC2611	B OUT
	710	2SA1091	B AC AMP
	D 701	RD9.1ES-B3	PROTECT-1
	702	1SS133	AC MIX-1
	703	1SS133	AC MIX-2
	704	1SS133	AC MIX-3
	705	1SS133	PROTECT-2
	706	1SS133	PROTECT-3
	707	1SS133	PROTECT-4
	708	1SS133	PROTECT-5
	709	1SS133	PROTECT-6
	710	1SS133	PROTECT-7
711	RGP10GPKG23	PROTECT-8	
	713	1SS133	PROTECT

J1

[INTERFACE]

J2

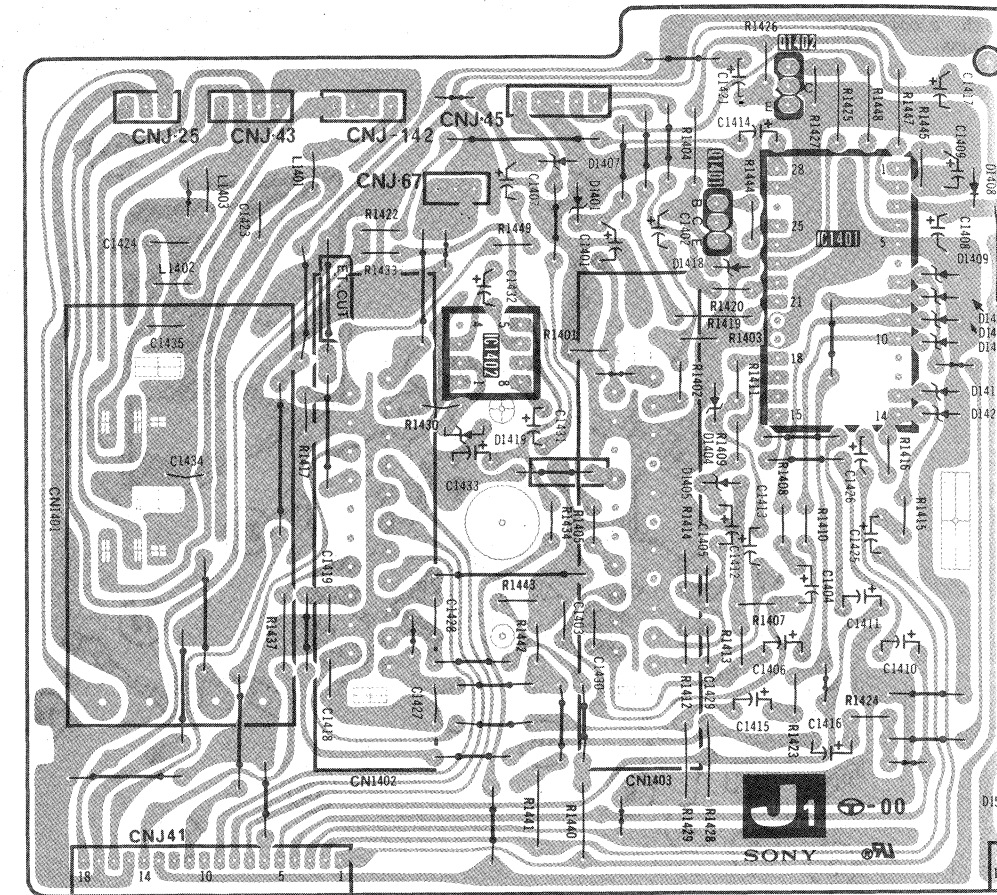
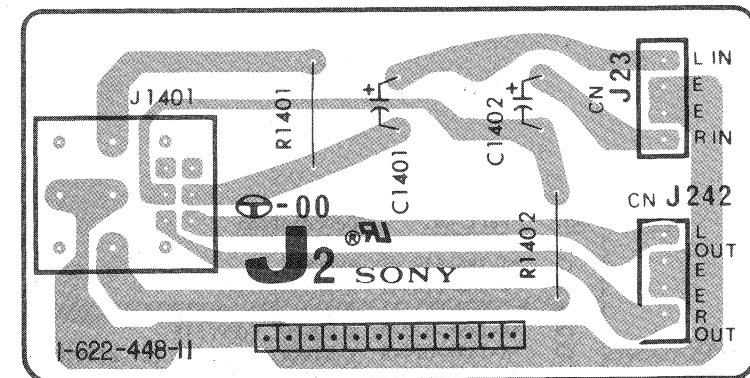
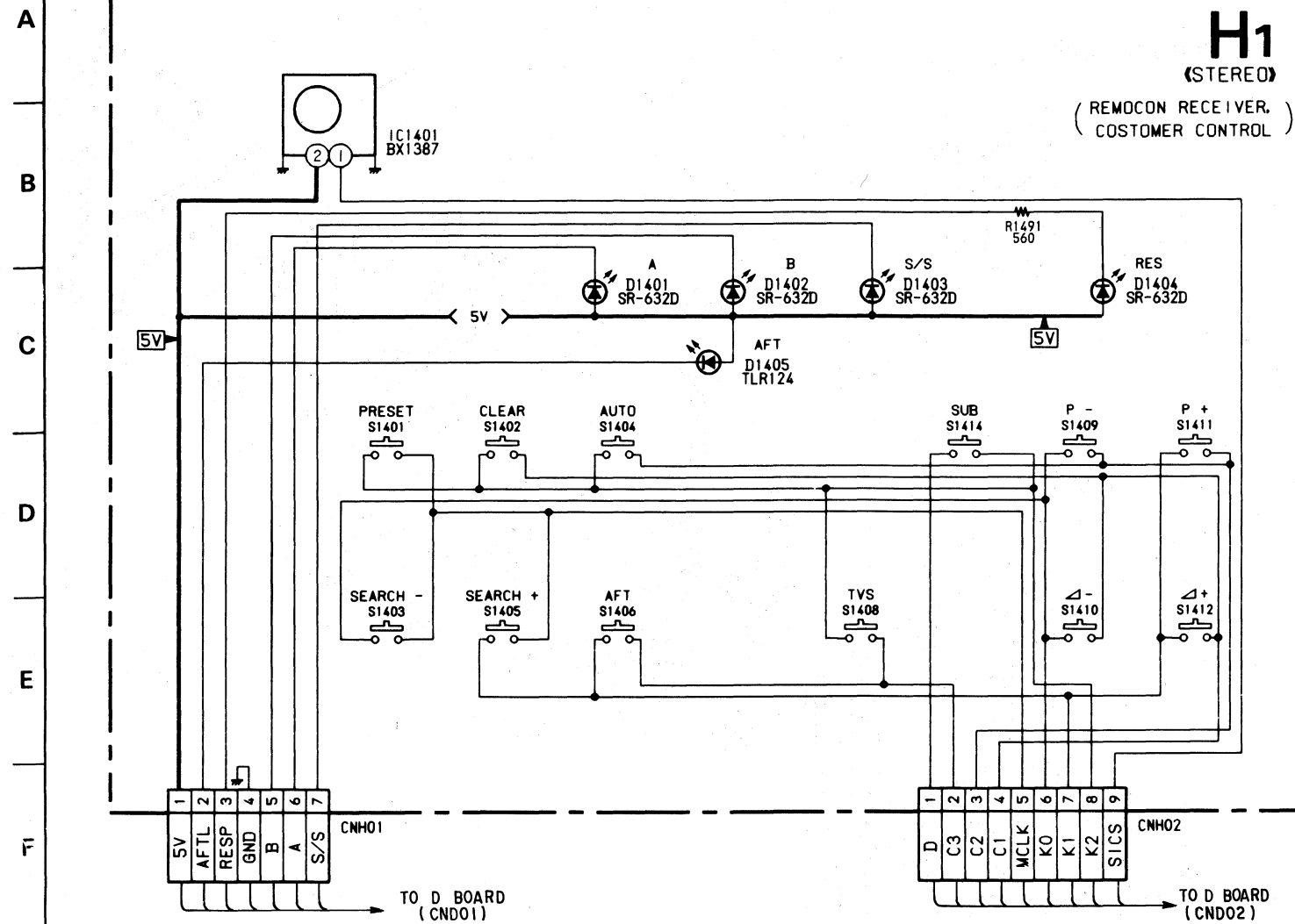
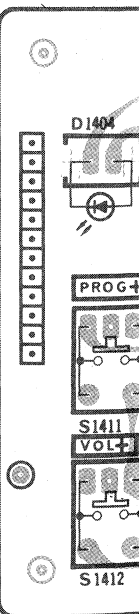
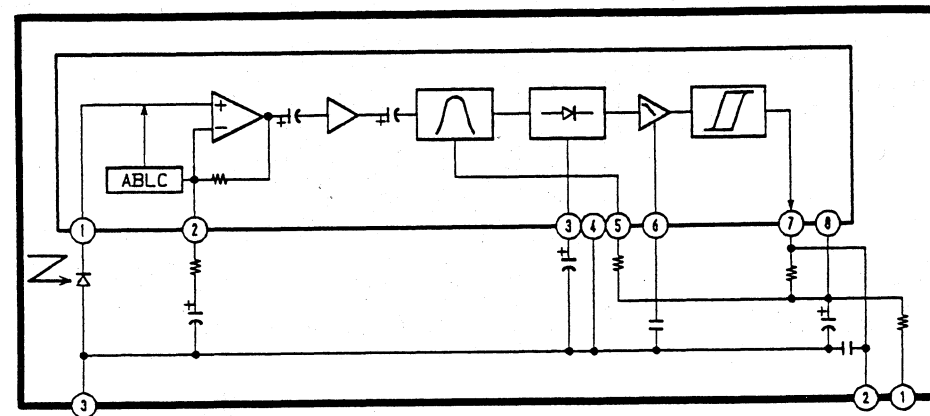
[HEADPHONE]

H1

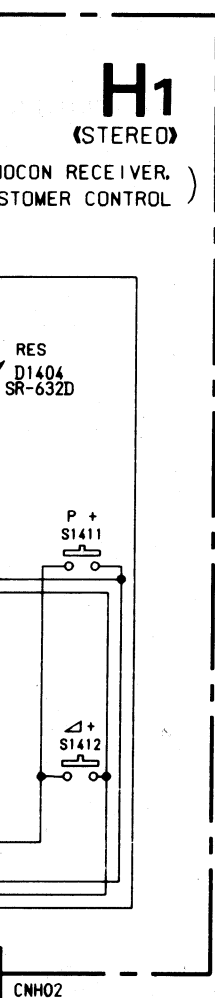
[REMOCON RECEIVER,
CUSTOMER]

1 2 3 4 5 6 7 8 9 10 11 12 13 14

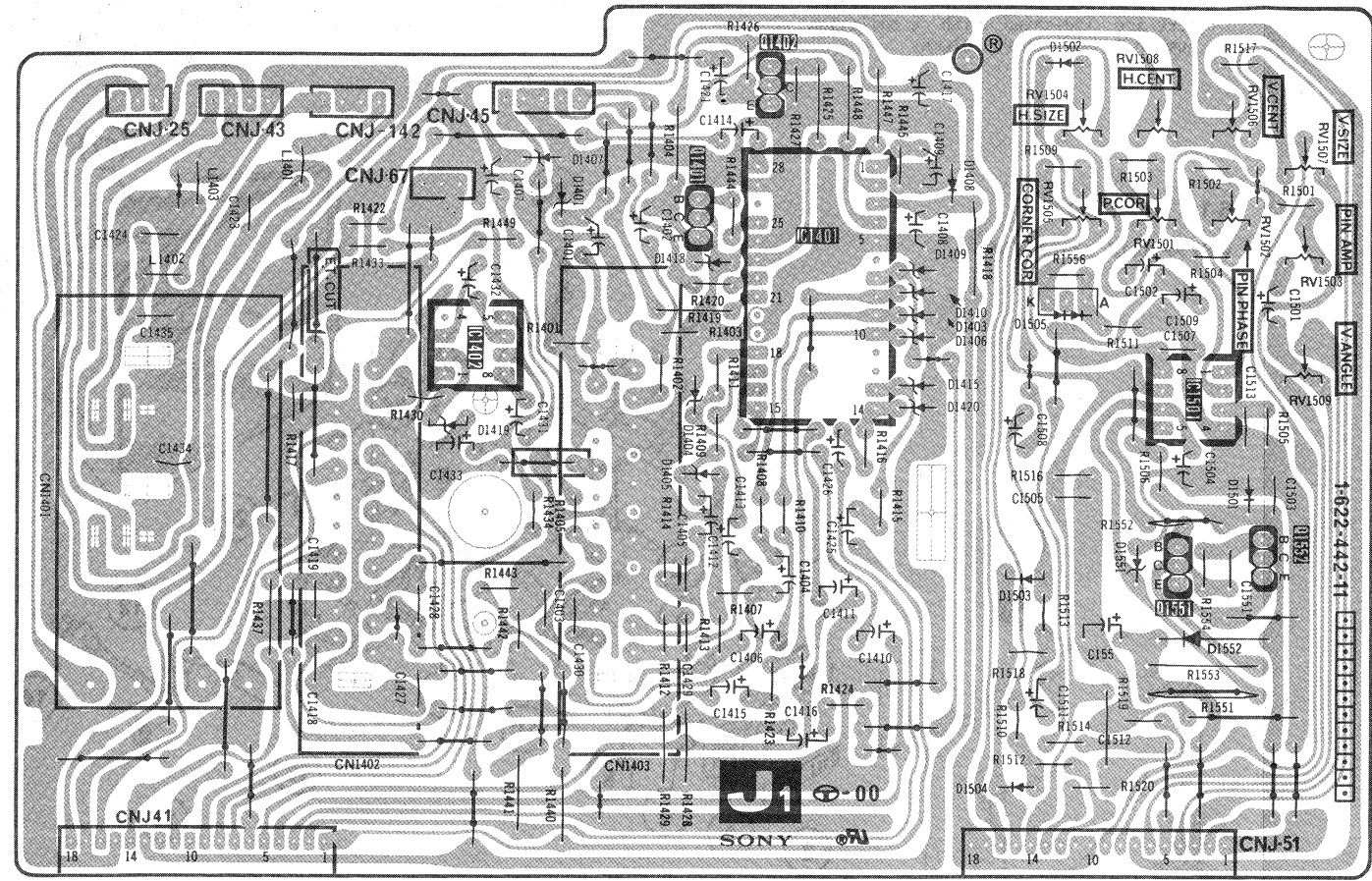
PRINTED WIRING BOARDS (3)

- J₁ Board -- J₂ Board -- H₁ Board -H₁ BOARD IC1401 BX1387

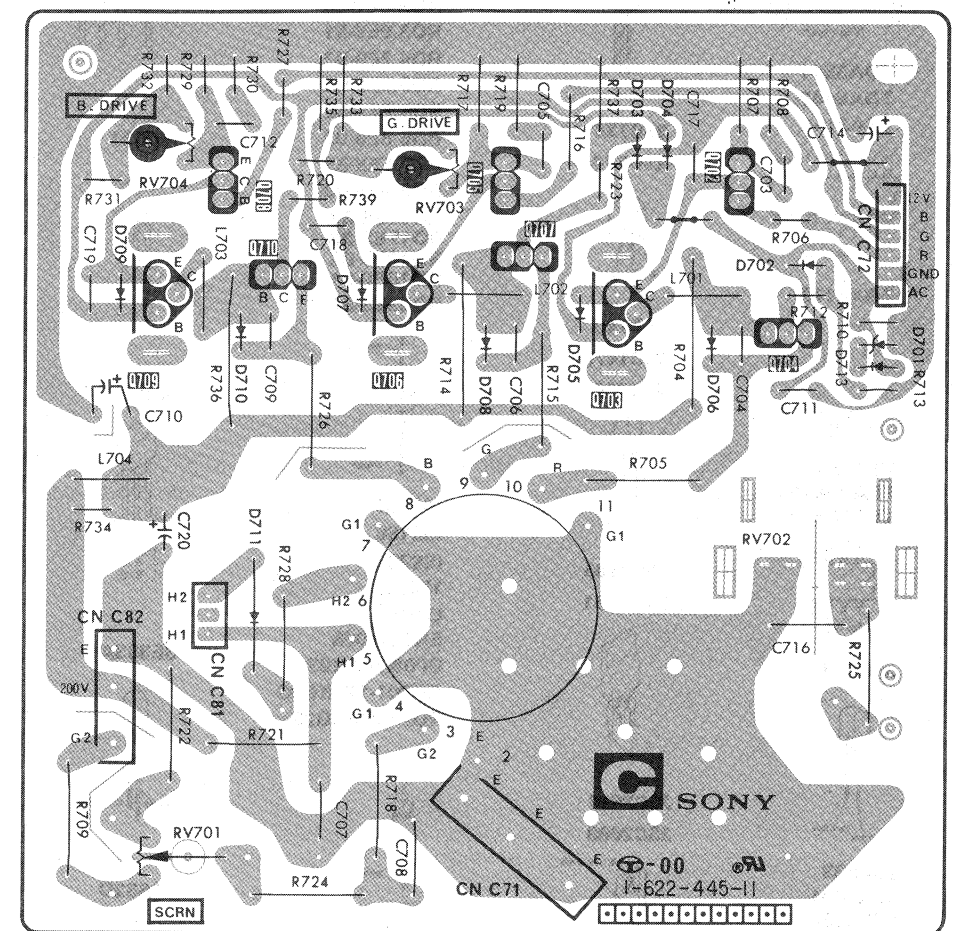
IC1401	BX1387	REMOCON RECEIVER
D1401	SR632D	A
1402	SR632D	B
1403	SR632D	SPACE SOUND
1404	SR632D	RESP
1405	TLR124	AFT



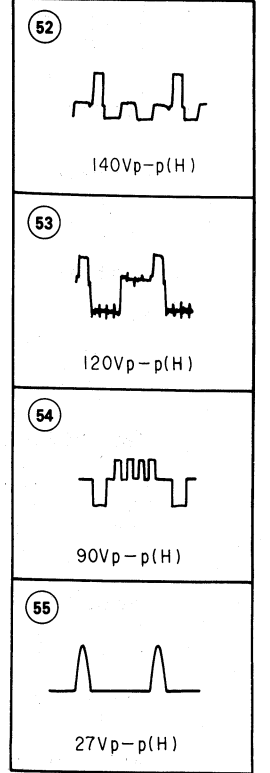
— J₁ Board —



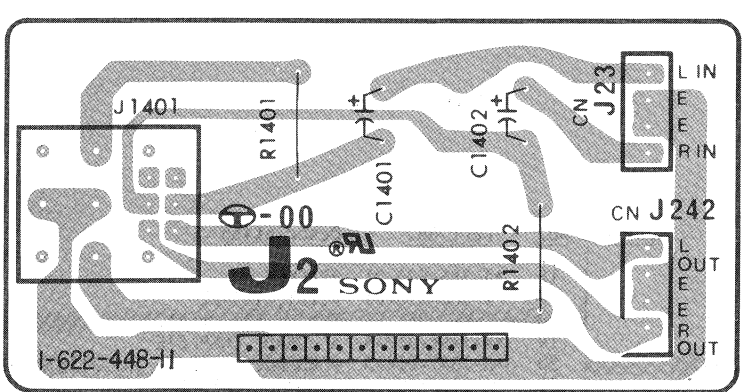
— C Board —



• C BOARD WAVEFORM

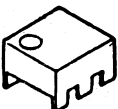


— J₂ Board —

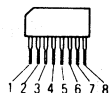


5-6. SEMICONDUCTORS

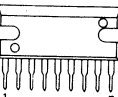
BX-1387



CX20061



LA4280

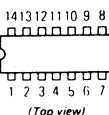


M50436-614SP



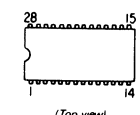
TOP VIEW

M58655P

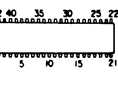


MAB8461P-W083

TDA4555
TDA4580
TDA6200
TDA6600
TEA2028A
SAA5231
μPD4364CX015L

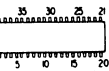


MB88503H-565G



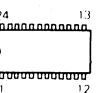
(Top view)

SAA5243E



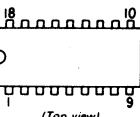
(Top view)

TDA2556



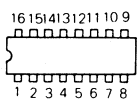
(Top view)

TDA2595



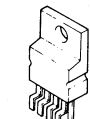
(Top view)

TDA3541
TDA8442
TEA2164

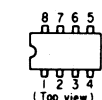


(Top view)

TDA8170

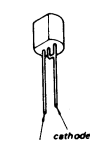


TBA129
TEA2014A
TEA2031A

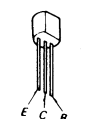


(Top view)

μPC574J



2SA933
2SA1091
2SC2060
JA101TP
JC501TP



2SA1048

2SA1115

2SC1740SRT

2SC2458

2SC2603

DTA124ES

DTA144ES

DTC114ES

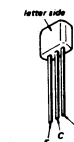
DTC124ES

DTC144ES



2SA1175

2SC2785



2SB734

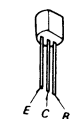
2SD774



2SB740

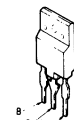
2SC1475

2SD789



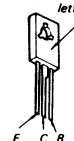
2SB1185

2SD1761

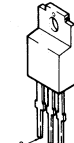


2SC2611

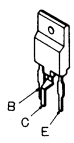
2SC2688



2SD1548



2SD1941



ISS119

ISS133

ISS148

HZS39NB4TD

RD3.6ES-B2

RD3.9ES-B1

RD4.7ES-B1

RD5.6ES-B2

RD6.2ES-B2

RD6.8ES-B2

RD7.5ES-B3

RD9.1ES-B3

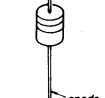
RD10ES-B3

RD11ES-B3

RD13ES-B2

RD15ES-B1

RD39ES-B4



IS1555

ISS168

ISS238

10E2

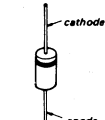
ES1F

ERD28-06S

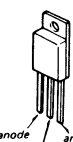
GP08DPKG23

RGP01-17PKG23

RGP10GPKG23



CTU-12S

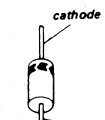


ERC06-15S

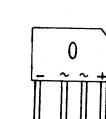
ERC24-06S

ERC25-06S

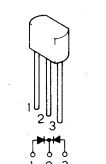
ERD29-08J



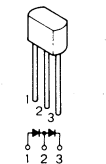
KBU-4J



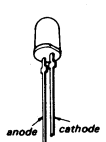
MC921



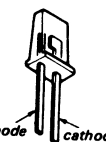
MC931



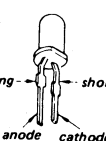
SE303AY



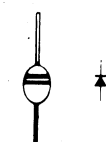
SR632D



TLR124



V19E

SECTION 6
EXPLODED VIEWS

NOTE:

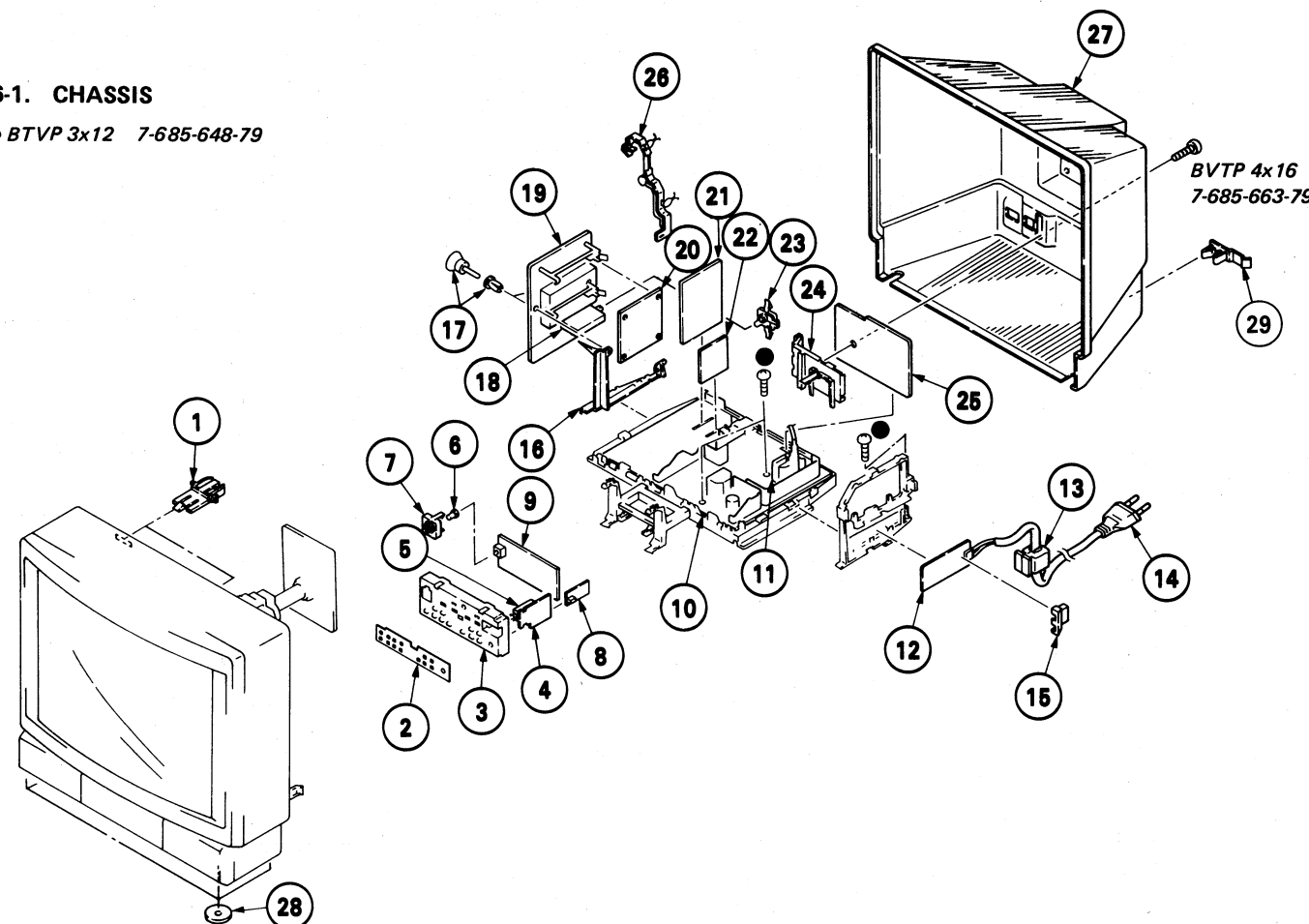
- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remark column.

- Items marked "★" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified by shading and mark **A** are critical for safety. Replace only with part number specified.

6-1. CHASSIS

• BTVP 3x12 7-685-648-79



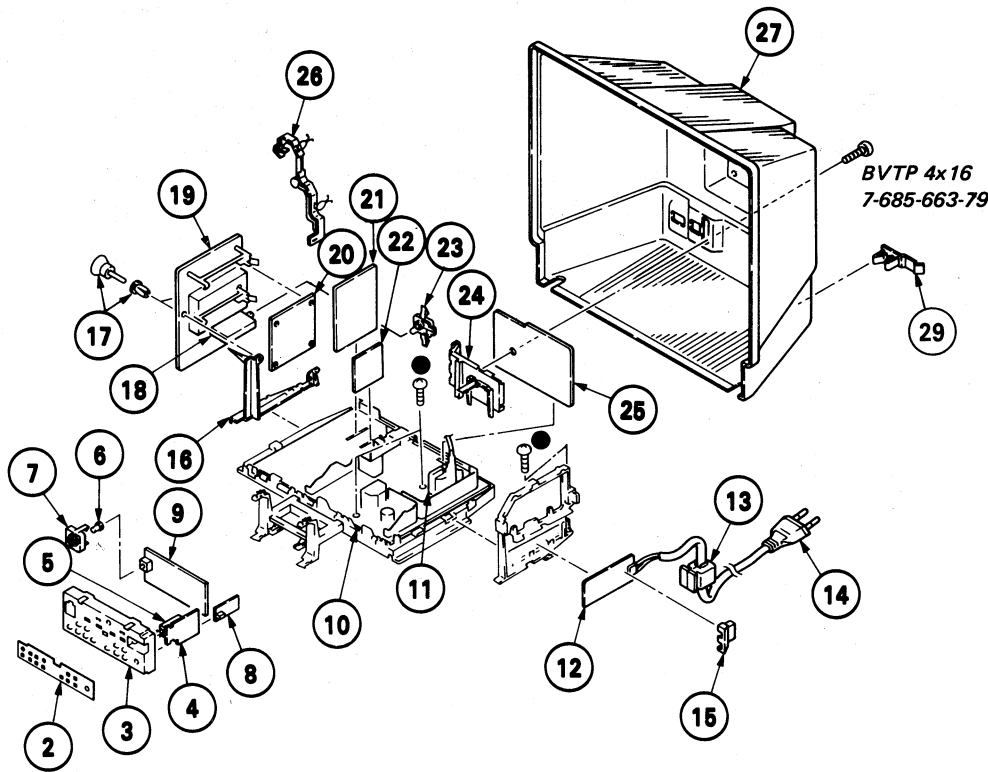
No.	Part No.	Description	Remark	No.	Part No.	Description	Remark	No.	Part
1	4-382-745-01	HOLDER, RC		16	*4-386-629-01	BRACKET, A		51	4-382
2	*4-382-743-01	LABEL, CONTROL		17	4-386-618-01	RIVET, T TYPE			4-382
3	*4-382-748-01	PANEL, CONTROL		18	A.1-463-881-11	TUNER, ET (UV-617)			4-382
4	*1-622-447-11	F2 BOARD		19	*A-1296-317-A	A BOARD, COMPLETE			4-382
5	A.1-554-762-51	SWITCH, PUSH (AC POWER) (1KEY)		20	*A-1347-014-A	V BOARD, COMPLETE (KV-21XSTD ONLY)		52	X-438
6	*4-374-987-01	GUIDE, LIGHT		21	*A-1135-455-A	B BOARD, COMPLETE		53	4-382
7	*4-381-686-01	BRACKET (B), BAR, OPTICAL		22	*1-622-449-11	KS BOARD		54	4-374
8	*1-622-448-11	J2 BOARD		23	*4-386-617-01	HOLDER, TERMINAL		55	4-382
9	*1-622-450-11	H BOARD		24	*4-386-624-01	BRACKET, J		56	4-382
10	*A-1345-721-A	D BOARD, COMPLETE		25	*A-1371-335-A	J1 BOARD, COMPLETE		57	1-503
11	A.1-439-416-11	TRANSFORMER ASSY, FLYBACK		26	*4-386-628-01	SUPPORTER, PC BOARD		58	*4-382
12	*1-622-446-21	F1 BOARD		27	4-382-752-01	COVER, REAR		59	A.8-738
13	A.4-022-115-01	HOLDER, AC CORD		28	4-809-913-XX	FOOT, F		60	4-382
14	A.1-559-346-11	CORD, POWER (WITH CONNECTOR)		29	4-329-127-00	CLAMP, CORD		61	A.1-451
15	*4-386-620-01	COVER, POWER							

SECTION 6
EXPLODED VIEWS

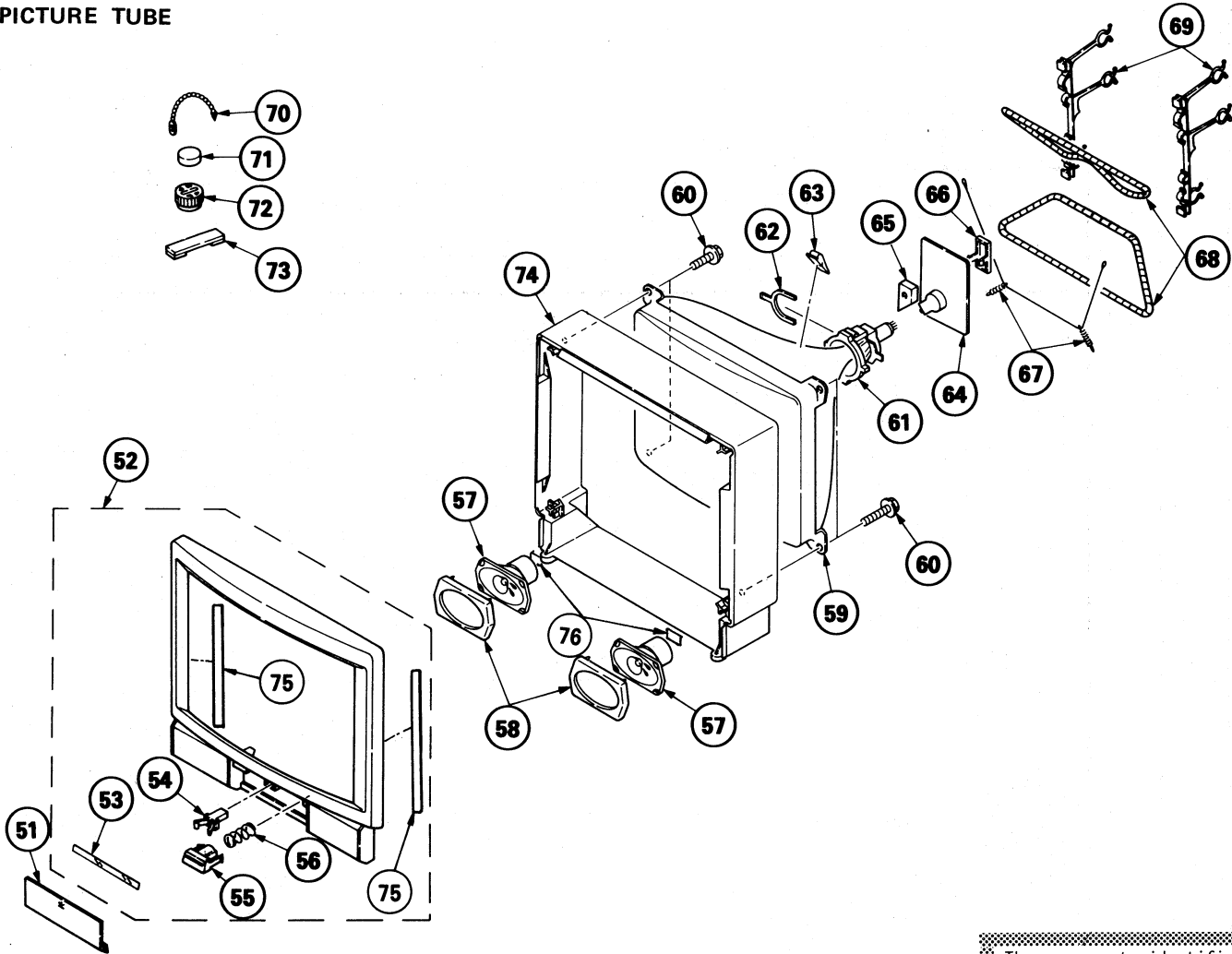
and no des-
because they
routine service.
an assembled
a collation
n.

• Items marked "★" are not stocked since
they are seldom required for routine
service. Some delay should be anticipated
when ordering these items.

The components identified
by shading and mark ▲ are
critical for safety.
Replace only with part
number specified.



6-2. PICTURE TUBE



The components identified
by shading and mark ▲ are
critical for safety.
Replace only with part
number specified.

Remark	No.	Part No.	Description	Remark
	16	*4-386-629-01	BRACKET, A	
	17	4-386-618-01	RIVET, T TYPE	
	18	▲ 1-463-881-11	TUNER, ET (UV-617)	
	19	*A-1296-317-A	A BOARD, COMPLETE	
	20	*A-1347-014-A	V BOARD, COMPLETE (KV-21XSTD ONLY)	
	21	*A-1135-455-A	B BOARD, COMPLETE	
	22	*1-622-449-11	KS BOARD	
	23	*4-386-617-01	HOLDER, TERMINAL	
	24	*4-386-624-01	BRACKET, J	
	25	*A-1371-335-A	J1 BOARD, COMPLETE	
	26	*4-386-628-01	SUPPORTER, PC BOARD	
	27	4-382-752-01	COVER, REAR	
	28	4-809-913-XX	FOOT, F	
	29	4-329-127-00	CLAMP, CORD	

No.	Part No.	Description
51	4-382-746-01	DOOR (SILVER) (KV-21XSD ONLY)
	4-382-746-11	DOOR (BLACK) (KV-21XSD ONLY)
	4-382-746-21	DOOR (SILVER) (KV-21XSTD ONLY)
	4-382-746-31	DOOR (BLACK) (KV-21XSTD ONLY)
52	X-4380-623-1	BEZEL ASSY
53	4-382-738-01	LABEL, CHANNEL
54	4-374-714-01	CATCH, PUSH
55	4-382-739-01	BUTTON, POWER
56	4-382-732-01	SPRING
57	1-503-642-11	SPEAKER
58	*4-382-742-01	CUSHION, SPEAKER
59	▲ 8-738-753-05	PICTURE TUBE (A51JUH60X)
60	4-382-733-01	SCREW (S), PT
61	▲ 1-451-295-41	DEFLECTION YOKE (SY-153E)

Remark	No.	Part No.	Description	Remark
	62	1-452-277-00	MAGNET, BMC	
	63	3-703-003-00	SPACER, DY	
	64	*A-1330-815-A	C BOARD, COMPLETE	
	65	*4-379-167-01	COVER (MAIN), CV	
	66	*4-379-160-01	COVER (REAR LED), CV	
	67	4-369-318-00	SPRING, TENSION	
	68	▲ 1-426-326-11	COIL, DEMAGNETIZATION	
	69	*4-386-622-01	BAND, DGC	
	70	4-308-870-00	CLIP, LEAD WIRE	
	71	1-452-032-00	MAGNET, DISK; 10MM Ø	
	72	1-452-094-00	MAGNET, DISK ROTATABLE; 15MM Ø	
	73	X-4309-608-0	PERMALLOY ASSY, CONVERGENCE	
	74	4-382-751-01	CABINET	
	75	4-386-645-01	CUSHION, PICTURE TUBE	
	76	4-385-966-00	CUSHION	

B**F2**

Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
Q316	8-729-178-54	TRANSISTOR 2SC2785		R352	1-247-891-00	CARBON 330K 5%	1/4W
Q334	8-729-178-54	TRANSISTOR 2SC2785		R353	1-247-891-00	CARBON 330K 5%	1/4W
Q335	8-729-178-54	TRANSISTOR 2SC2785		R356	1-249-427-11	CARBON 6.8K 5%	1/4W
Q336	8-729-178-54	TRANSISTOR 2SC2785		R357	1-249-409-11	CARBON 220 5%	1/4W
Q381	8-729-900-36	TRANSISTOR DTC124ES		R358	1-249-409-11	CARBON 220 5%	1/4W
Q382	8-729-178-54	TRANSISTOR 2SC2785		R361	1-249-418-11	CARBON 1.2K 5%	1/4W
Q1306	8-729-117-54	TRANSISTOR 2SA1175		R362	1-249-421-11	CARBON 2.2K 5%	1/4W
<u>RESISTOR</u>				R363	1-249-418-11	CARBON 1.2K 5%	1/4W
R301	1-249-409-11	CARBON 220 5%	1/4W	R367	1-249-409-11	CARBON 220 5%	1/4W
R302	1-249-409-11	CARBON 220 5%	1/4W	R368	1-247-752-11	CARBON 1K 5%	1/2W
R303	1-249-409-11	CARBON 220 5%	1/4W	R369	1-247-752-11	CARBON 1K 5%	1/2W
R304	1-249-409-11	CARBON 220 5%	1/4W	R370	1-249-418-11	CARBON 1.2K 5%	1/4W
R305	1-249-421-11	CARBON 2.2K 5%	1/4W	R371	1-249-417-11	CARBON 1K 5%	1/4W
R307	1-249-441-11	CARBON 100K 5%	1/4W	R376	1-249-429-11	CARBON 10K 5%	1/4W
R308	1-249-414-11	CARBON 560 5%	1/4W	R378	1-249-441-11	CARBON 100K 5%	1/4W
R309	1-249-405-11	CARBON 100 5%	1/4W	R379	1-249-441-11	CARBON 100K 5%	1/4W
R310	1-249-405-11	CARBON 100 5%	1/4W	R380	1-247-849-00	CARBON 5.6K 5%	1/4W
R311	1-249-405-11	CARBON 100 5%	1/4W	R381	1-249-439-11	CARBON 68K 5%	1/4W
R312	1-249-409-11	CARBON 220 5%	1/4W	R382	1-247-885-00	CARBON 180K 5%	1/4W
R313	1-249-441-11	CARBON 100K 5%	1/4W	R383	1-215-483-00	CARBON 390K 5%	1/4W
R314	1-249-413-11	CARBON 470 5%	1/4W	R385	1-249-435-11	CARBON 33K 5%	1/4W
R315	1-249-407-11	CARBON 150 5%	1/4W	R389	1-247-883-00	CARBON 150K 5%	1/4W
R316	1-249-407-11	CARBON 150 5%	1/4W	R391	1-249-404-00	CARBON 82 5%	1/4W
R317	1-249-407-11	CARBON 150 5%	1/4W	R392	1-249-402-11	CARBON 56 5%	1/4W
R318	1-249-429-11	CARBON 10K 5%	1/4W	R393	1-249-402-11	CARBON 56 5%	1/4W
R319	1-249-409-11	CARBON 220 5%	1/4W	R394	1-249-402-11	CARBON 56 5%	1/4W
R320	1-249-417-11	CARBON 1K 5%	1/4W	R398	1-249-433-11	CARBON 22K 5%	1/4W
R321	1-249-421-11	CARBON 2.2K 5%	1/4W	R1324	1-249-419-11	CARBON 1.5K 5%	1/4W
R322	1-249-420-11	CARBON 1.8K 5%	1/4W	<u>VARIABLE RESISTOR</u>			
R323	1-249-421-11	CARBON 2.2K 5%	1/4W	RV331	1-230-504-11	RES, ADJ, CARBON 220	
R324	1-247-849-00	CARBON 5.6K 5%	1/4W	<u>TRANSFORMER</u>			
R325	1-249-429-11	CARBON 10K 5%	1/4W	T331	1-404-584-11	COIL	
R326	1-249-419-11	CARBON 1.5K 5%	1/4W	<u>CRYSTAL</u>			
R327	1-249-427-11	CARBON 6.8K 5%	1/4W	X332	1-567-131-00	OSCILLATOR, CRYSTAL	
R328	1-249-397-11	CARBON 22 5%	1/4W	<u>YC MODULE</u>			
R329	1-249-397-11	CARBON 22 5%	1/4W	YCM301	1-235-753-21	YC MODULE	
R330	1-249-397-11	CARBON 22 5%	1/4W	*****			
R331	1-249-418-11	CARBON 1.2K 5%	1/4W	*1-622-447-11	F2 BOARD		
R332	1-249-401-11	CARBON 47 5%	1/4W	*****			
R333	1-249-412-11	CARBON 390 5%	1/4W	<u>CONNECTOR</u>			
R334	1-249-408-11	CARBON 180 5%	1/4W	CNF262*1-506-347-21	4P PLUG		
R335	1-249-415-11	CARBON 680 5%	1/4W	<u>SWITCH</u>			
R336	1-249-418-11	CARBON 1.2K 5%	1/4W	S1701A	1-554-762-51	SWITCH, PUSH (AC POWER)(1 KEY)	
R337	1-215-438-00	CARBON 5.1K 5%	1/4W				
R338	1-249-429-11	CARBON 10K 5%	1/4W				
R344	1-249-437-11	CARBON 47K 5%	1/4W				
R346	1-249-419-11	CARBON 1.5K 5%	1/4W				
R347	1-249-429-11	CARBON 10K 5%	1/4W				
R348	1-249-437-11	CARBON 47K 5%	1/4W				
R349	1-249-415-11	CARBON 680 5%	1/4W				
R350	1-249-415-11	CARBON 680 5%	1/4W				
R351	1-249-410-11	CARBON 270 5%	1/4W				

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A

Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
C163	1-124-927-11	ELECT	4.7MF 20% 50V	<u>TRANSISTOR</u>			
C164	1-110-190-81	MYLAR	0.01MF 10% 400V	Q101	8-729-900-61	TRANSISTOR DTA114ES	
C165	1-130-853-00	FILM	0.0047MF 5% 50V	Q102	8-729-900-61	TRANSISTOR DTA114ES	
C167	1-124-499-11	ELECT	1MF 20% 50V	Q104	8-729-900-61	TRANSISTOR DTA114ES	
C168	1-110-179-81	MYLAR	0.22MF 10% 100V	Q105	8-729-178-54	TRANSISTOR 2SC2785	
C169	1-123-875-11	ELECT	10MF 20% 50V	Q106	8-729-178-54	TRANSISTOR 2SC2785	
C170	1-101-004-00	CERAMIC	0.01MF 50V	Q107	8-729-117-54	TRANSISTOR 2SA1175	
C171	1-101-004-00	CERAMIC	0.01MF 50V	Q108	8-729-900-65	TRANSISTOR DTA144ES	
C174	1-124-499-11	ELECT	1MF 20% 50V	Q109	8-729-900-89	TRANSISTOR DTC144ES	
C177	1-102-119-00	CERAMIC	0.0015MF 10% 50V	Q110	8-729-117-54	TRANSISTOR 2SA1175	
<u>FILTER</u>				Q111	8-729-900-89	TRANSISTOR DTC144ES	
CD101	1-404-750-11	DISCRIMINATOR, CERAMIC		Q112	8-729-178-54	TRANSISTOR 2SC2785	
CD102	1-404-745-11	DISCRIMINATOR, CERAMIC		Q113	8-729-178-54	TRANSISTOR 2SC2785	
CD103	1-404-746-11	DISCRIMINATOR, CERAMIC		<u>RESISTOR</u>			
CF101	1-404-134-00	TRAP, CERAMIC (5.5MHZ)		R101	1-249-405-11	CARBON 100 5% 1/4W	
CF103	1-527-840-00	FILTER, CERAMIC		R102	1-249-423-11	CARBON 3.3K 5% 1/4W	
CF104	1-527-839-00	FILTER, CERAMIC		R103	1-249-433-11	CARBON 22K 5% 1/4W	
CF105	1-527-839-00	FILTER, CERAMIC		R104	1-249-429-11	CARBON 10K 5% 1/4W	
SWF101	1-404-717-11	FILTER, SURFACE WAVE		R105	1-249-418-11	CARBON 1.2K 5% 1/4W	
<u>CONNECTOR</u>				R106	1-247-891-00	CARBON 330K 5% 1/4W	
CNA11	*1-566-660-11	CONNECTOR, HINGE (PLUG) 18P		R107	1-249-421-11	CARBON 2.2K 5% 1/4W	
<u>DIODE</u>				R108	1-249-421-11	CARBON 2.2K 5% 1/4W	
D105	8-719-109-92	DIODE RD6.2ES-B1		R109	1-249-423-11	CARBON 3.3K 5% 1/4W	
D106	8-719-911-19	DIODE 1SS119		R110	1-249-412-11	CARBON 390 5% 1/4W	
D108	8-719-000-06	DIODE MC921		R111	1-249-418-11	CARBON 1.2K 5% 1/4W	
<u>IC</u>				R112	1-249-421-11	CARBON 2.2K 5% 1/4W	
IC101	8-759-909-08	IC TDA3541		R113	1-249-411-11	CARBON 330 5% 1/4W	
IC102	8-759-941-96	IC TDA2556		R114	1-249-413-11	CARBON 470 5% 1/4W	
IC103	8-759-013-18	IC TDA6600		R115	1-249-413-11	CARBON 470 5% 1/4W	
IC104	8-759-941-81	IC TDA2595-V6		R116	1-249-419-11	CARBON 1.5K 5% 1/4W	
IC105	8-759-003-90	IC TBA129		R117	1-249-431-11	CARBON 15K 5% 1/4W	
<u>COIL</u>				R118	1-249-425-11	CARBON 4.7K 5% 1/4W	
L101	1-408-226-00	MICRO INDUCTOR 82UH		R119	1-249-417-11	CARBON 1K 5% 1/4W	
L102	1-410-116-11	MICRO INDUCTOR 560UH		R121	1-249-429-11	CARBON 10K 5% 1/4W	
L103	1-410-467-21	MICRO INDUCTOR 5.6UH		R122	1-247-869-00	CARBON 39K 5% 1/4W	
L104	1-408-411-00	MICRO INDUCTOR 15UH		R123	1-249-417-11	CARBON 1K 5% 1/4W	
L105	1-410-482-31	MICRO INDUCTOR 100UH		R124	1-249-423-11	CARBON 3.3K 5% 1/4W	
L106	1-410-476-11	MICRO INDUCTOR 33UH		R125	1-249-429-11	CARBON 10K 5% 1/4W	
L107	1-410-467-21	MICRO INDUCTOR 5.6UH		R126	1-247-869-00	CARBON 39K 5% 1/4W	
L108	1-410-473-11	MICRO INDUCTOR 18UH		R127	1-249-432-11	CARBON 18K 5% 1/4W	
L109	1-410-473-11	MICRO INDUCTOR 18UH		R128	1-249-432-11	CARBON 18K 5% 1/4W	
L110	1-410-064-11	MICRO INDUCTOR 2.7MMH		R129	1-249-429-11	CARBON 10K 5% 1/4W	
L111	1-410-482-31	MICRO INDUCTOR 100UH		R130	1-249-429-11	CARBON 10K 5% 1/4W	
L112	1-410-471-11	MICRO INDUCTOR 12UH		R132	1-249-414-11	CARBON 560 5% 1/4W	
L113	1-410-460-11	MICRO INDUCTOR 1.5UH		R133	1-249-424-11	CARBON 3.9K 5% 1/4W	
				R134	1-249-414-11	CARBON 560 5% 1/4W	
				R135	1-249-423-11	CARBON 3.3K 5% 1/4W	
				R136	1-249-414-11	CARBON 560 5% 1/4W	
				R137	1-249-414-11	CARBON 560 5% 1/4W	
				R138	1-249-423-11	CARBON 3.3K 5% 1/4W	
				R140	1-249-441-11	CARBON 100K 5% 1/4W	

A**C**

Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
R141	1-249-424-11	CARBON	3.9K 5% 1/4W	C711	1-101-880-00	CERAMIC	47PF 5% 50V
R142	1-249-441-11	CARBON	100K 5% 1/4W	C712	1-102-980-00	CERAMIC	270PF 5% 50V
R143	1-249-441-11	CARBON	100K 5% 1/4W	C714	1-124-555-00	ELECT	1000MF 20% 16V
R144	1-249-422-11	CARBON	2.7K 5% 1/4W	C716	1-162-583-11	CERAMIC	330PF 10% 400V
R145	1-249-417-11	CARBON	1K 5% 1/4W	C717	1-102-114-00	CERAMIC	470PF 10% 50V
R146	1-249-422-11	CARBON	2.7K 5% 1/4W	C718	1-102-114-00	CERAMIC	470PF 10% 50V
R147	1-249-417-11	CARBON	1K 5% 1/4W	C719	1-102-114-00	CERAMIC	470PF 10% 50V
R148	1-249-413-11	CARBON	470 5% 1/4W	<u>CONNECTOR</u>			
R150	1-249-423-11	CARBON	3.3K 5% 1/4W	CNC71	*1-506-371-00	2P PLUG (L)	
R151	1-249-423-11	CARBON	3.3K 5% 1/4W	CNC72	*1-564-883-11	PLUG, CONNECTOR 6P	
R152	1-249-431-11	CARBON	15K 5% 1/4W	CNC81	*1-560-123-00	PLUG, CONNECTOR (2.5MM PITCH)	
R153	1-249-416-11	CARBON	820 5% 1/4W	CNC82	*1-508-765-00	3P PLUG (M)	
R154	1-249-441-11	CARBON	100K 5% 1/4W	<u>DIODE</u>			
R155	1-249-430-11	CARBON	12K 5% 1/4W	D701	8-719-110-14	DIODE RD9.1ES-B3	
R156	1-247-881-00	CARBON	120K 5% 1/4W	D702	8-719-911-19	DIODE 1SS119	
R160	1-249-417-11	CARBON	1K 5% 1/4W	D703	8-719-911-19	DIODE 1SS119	
R162	1-249-415-11	CARBON	680 5% 1/4W	D704	8-719-911-19	DIODE 1SS119	
R163	1-249-422-11	CARBON	2.7K 5% 1/4W	D705	8-719-911-19	DIODE 1SS119	
R165	1-249-423-11	CARBON	3.3K 5% 1/4W	D706	8-719-911-19	DIODE 1SS119	
R166	1-249-437-11	CARBON	47K 5% 1/4W	D707	8-719-911-19	DIODE 1SS119	
R172	1-249-417-11	CARBON	1K 5% 1/4W	D708	8-719-911-19	DIODE 1SS119	
R173	1-249-414-11	CARBON	560 5% 1/4W	D709	8-719-911-19	DIODE 1SS119	
<u>VARIABLE RESISTOR</u>				D710	8-719-911-19	DIODE 1SS119	
RV101	1-237-753-11	RES, ADJ, CARBON	47K	D711	8-719-924-06	DIODE ERC24-06S	
RV102	1-237-751-11	RES, ADJ, CARBON	10K	D713	8-719-911-19	DIODE 1SS119	
RV103	1-237-753-11	RES, ADJ, CARBON	47K	<u>JACK</u>			
<u>TRANSFORMER</u>				J701	1-526-798-25	SOCKET, CRT	
T101	1-404-493-00	COIL		<u>COIL</u>			
T102	1-404-493-00	COIL		L704	1-410-878-21	MICRO INDUCTOR 33UH	
T103	1-404-493-00	COIL		<u>TRANSISTOR</u>			
<u>TUNER</u>				Q702	8-729-178-54	TRANSISTOR 2SC2785	
TU101A	1-463-881-11	TUNER, ET (UV-617)		Q703	8-729-326-11	TRANSISTOR 2SC2611	
*****				Q704	8-729-200-17	TRANSISTOR 2SA1091	
*A-1330-815-A C BOARD, COMPLETE				Q705	8-729-178-54	TRANSISTOR 2SC2785	
*****				Q706	8-729-326-11	TRANSISTOR 2SC2611	
*4-379-160-01 COVER (REAR LID), CV				Q707	8-729-200-17	TRANSISTOR 2SA1091	
*4-379-167-01 COVER (MAIN), CV				Q708	8-729-178-54	TRANSISTOR 2SC2785	
*4-386-664-01 SPRING				Q709	8-729-326-11	TRANSISTOR 2SC2611	
<u>CAPACITOR</u>				Q710	8-729-200-17	TRANSISTOR 2SA1091	
C703	1-102-980-00	CERAMIC	270PF 5% 50V	<u>RESISTOR</u>			
C704	1-102-116-00	CERAMIC	680PF 10% 50V	R704	1-216-486-00	METAL OXIDE	8.2K 5% 3W F
C705	1-102-976-00	CERAMIC	180PF 5% 50V	R705	1-202-824-00	SOLID	3.3K 10% 1/2W
C706	1-102-116-00	CERAMIC	680PF 10% 50V	R706	1-249-409-11	CARBON	220 5% 1/4W
C707	1-162-116-00	CERAMIC	680PF 10% 2KV	R707	1-247-822-00	CARBON	430 5% 1/4W
C708	1-162-114-00	CERAMIC	0.0047MF 2KV	R708	1-249-401-11	CARBON	47 5% 1/4W
C709	1-102-116-00	CERAMIC	680PF 10% 50V	R709	1-202-844-00	SOLID	330K 10% 1/2W
C710	1-123-947-00	ELECT	10MF 20% 250V				

The components identified by shading and mark **A** are critical for safety. Replace only with part number specified.



Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
R710	1-215-469-00	METAL	100K 1% 1/6W	C015	1-126-101-11	ELECT	100MF 20% 16V
R712	1-249-417-11	CARBON	1K 5% 1/4W	C016	1-101-004-00	CERAMIC	0.01MF 50V
R713	1-215-474-00	METAL	160K 1% 1/6W	C017	1-123-875-11	ELECT	10MF 20% 50V
R714	1-216-486-00	METAL OXIDE	8.2K 5% 3W F	C018	1-102-980-00	CERAMIC	270PF 5% 50V
R715	1-202-824-00	SOLID	3.3K 10% 1/2W	C019	1-110-171-81	MYLAR	0.047MF 10% 100V
R716	1-249-409-11	CARBON	220 5% 1/4W	C021	1-102-973-00	CERAMIC	100PF 5% 50V
R717	1-249-415-11	CARBON	680 5% 1/4W	C022	1-124-477-11	ELECT	47MF 20% 16V
R718	1-202-814-11	SOLID	33K 10% 1/2W	C024	1-124-499-11	ELECT	1MF 20% 50V
R719	1-249-401-11	CARBON	47 5% 1/4W	C025	1-102-125-00	CERAMIC	0.0047MF 10% 50V
R720	1-249-423-11	CARBON	3.3K 5% 1/4W	C026	1-102-125-00	CERAMIC	0.0047MF 10% 50V
R721	1-202-842-11	SOLID	220K 10% 1/2W	C027	1-110-175-81	MYLAR	0.1MF 10% 100V
R722	1-202-848-00	SOLID	680K 10% 1/2W	C028	1-101-361-00	CERAMIC	150PF 5% 50V
R723	1-249-417-11	CARBON	1K 5% 1/4W	C029	1-102-121-00	CERAMIC	0.0022MF 10% 50V
R724	1-202-846-00	SOLID	470K 10% 1/2W	C251	1-124-927-11	ELECT	4.7MF 20% 50V
R725	1-202-838-00	SOLID	100K 10% 1/2W	C252	1-124-927-11	ELECT	4.7MF 20% 50V
R726	1-202-824-00	SOLID	3.3K 10% 1/2W	C253	1-124-122-11	ELECT	100MF 20% 50V
R727	1-249-409-11	CARBON	220 5% 1/4W	C254	1-124-927-11	ELECT	4.7MF 20% 50V
R728	1-216-347-11	METAL OXIDE	0.68 5% 1W F	C255	1-124-927-11	ELECT	4.7MF 20% 50V
R729	1-249-416-11	CARBON	820 5% 1/4W	C256	1-110-175-81	MYLAR	0.1MF 10% 100V
R730	1-249-401-11	CARBON	47 5% 1/4W	C257	1-101-004-00	CERAMIC	0.01MF 50V
R731	1-249-423-11	CARBON	3.3K 5% 1/4W	C258	1-110-175-81	MYLAR	0.1MF 10% 100V
R732	1-249-415-11	CARBON	680 5% 1/4W	C260	1-110-175-81	MYLAR	0.1MF 10% 100V
R733	1-249-415-11	CARBON	680 5% 1/4W	C265	1-102-074-00	CERAMIC	0.001MF 10% 50V
R734	1-249-405-11	CARBON	100 5% 1/4W	C266	1-102-074-00	CERAMIC	0.001MF 10% 50V
R735	1-215-493-00	METAL	1M 1% 1/6W	C401	1-124-477-11	ELECT	47MF 20% 16V
R736	1-216-486-00	METAL OXIDE	8.2K 5% 3W F	C403	1-124-477-11	ELECT	47MF 20% 16V
R737	1-215-483-00	METAL	390K 1% 1/6W	C501	1-124-927-11	ELECT	4.7MF 20% 50V
R739	1-249-417-11	CARBON	1K 5% 1/4W	C502	1-124-927-11	ELECT	4.7MF 20% 50V
VARIABLE RESISTOR				C503	1-110-192-81	MYLAR	0.015MF 10% 400V
RV701	1-226-114-00	RES, ADJ, METAL GLAZE 2.2M		C504	1-101-361-00	CERAMIC	150PF 5% 50V
RV702	1-230-619-11	RES, ADJ, METAL GLAZE 110M		C505	1-108-794-91	MYLAR	0.0015MF 5% 50V
RV703	1-237-749-11	RES, ADJ, CARBON 2200		C506	1-110-182-81	MYLAR	0.022MF 10% 250V
RV704	1-237-749-11	RES, ADJ, CARBON 2200		C507	1-110-327-81	MYLAR	0.33MF 10% 100V
*****				C508	1-110-182-81	MYLAR	0.022MF 10% 250V
*****				C509	1-110-175-81	MYLAR	0.1MF 10% 100V
*****				C510	1-161-959-00	CERAMIC	22PF 10% 500V
*****				C511	1-108-620-91	MYLAR	0.0033MF 10% 100V
*****				C512	1-110-175-81	MYLAR	0.1MF 10% 100V
*****				C513	1-108-614-91	MYLAR	0.001MF 10% 100V
*****				C514	1-110-179-81	MYLAR	0.22MF 10% 100V
*****				C515	1-124-499-11	ELECT	1MF 20% 50V
*****				C516	1-108-614-91	MYLAR	0.001MF 10% 100V
*****				C517	1-124-252-00	ELECT	0.33MF 20% 50V
*****				C518	1-124-902-00	ELECT	0.47MF 20% 50V
*****				C519	1-136-173-00	FILM	0.47MF 5% 50V
*****				C520	1-102-121-00	CERAMIC	0.0022MF 10% 50V
*****				C521	1-110-175-81	MYLAR	0.1MF 10% 100V
*****				C522	1-124-122-11	ELECT	100MF 20% 50V
*****				C523	1-108-614-91	MYLAR	0.001MF 10% 100V
*****				C524	1-106-184-00	MYLAR	0.0033MF 5% 50V
C001	1-102-973-00	CERAMIC	100PF 5% 50V	C525	1-102-973-00	CERAMIC	100PF 5% 50V
C002	1-102-116-00	CERAMIC	680PF 10% 50V	C527	1-110-175-81	MYLAR	0.1MF 10% 100V
C003	1-110-175-81	MYLAR	0.1MF 10% 100V	C531	1-124-117-00	ELECT	680MF 10% 25V
C004	1-123-875-11	ELECT	10MF 20% 50V				
C005	1-102-074-00	CERAMIC	0.001MF 10% 50V				
C007	1-110-171-81	MYLAR	0.047MF 10% 100V				
C008	1-101-880-00	CERAMIC	47PF 5% 50V				
C009	1-101-884-00	CERAMIC	56PF 5% 50V				
C010	1-126-101-11	ELECT	100MF 20% 16V				
C011	1-101-004-00	CERAMIC	0.01MF 50V				
C012	1-126-101-11	ELECT	100MF 20% 16V				
C013	1-101-004-00	CERAMIC	0.01MF 50V				
C014	1-124-463-00	ELECT	0.1MF 20% 50V				

*A-1345-721-A D BOARD, COMPLETE

CAPACITOR

D

The components identified by shading and mark **A** are critical for safety. Replace only with part number specified.

D

Ref.No.	Part No.	Description
D591	8-719-911-19	DIODE 1SS119
D592	8-719-911-19	DIODE 1SS119
D593	8-719-911-19	DIODE 1SS119
D601	8-719-946-90	DIODE KBU4JL-6088
D602	8-719-924-06	DIODE ERC24-06S
D603	8-719-911-55	DIODE U05G
D604	8-719-911-55	DIODE U05G
D605	8-719-911-55	DIODE U05G
D606	8-719-924-06	DIODE ERC24-06S
D607	8-719-924-06	DIODE ERC24-06S
D608	8-719-925-06	DIODE ERC25-06S
D610	8-719-300-59	DIODE CTU-12S
D611	8-719-928-08	DIODE ERD28-06S
D612	8-719-300-59	DIODE CTU-12S
D613	8-719-924-06	DIODE ERC24-06S
D614	8-719-924-06	DIODE ERC24-06S
D615	8-719-109-92	DIODE RD6.2ES-B1
D616	8-719-109-93	DIODE RD6.2ES-B2
D617	8-719-109-93	DIODE RD6.2ES-B2
D618	8-719-109-89	DIODE RD5.6ES-B2
D619	8-719-109-89	DIODE RD5.6ES-B2
D620	8-719-000-12	DIODE MC931
D621	8-719-000-12	DIODE MC931
D622	8-719-911-19	DIODE 1SS119
D623	8-719-911-19	DIODE 1SS119
D624	8-719-911-19	DIODE 1SS119
D627	8-719-911-19	DIODE 1SS119
D630	8-719-110-39	DIODE RD15ES-B1
D632	8-719-110-16	DIODE RD10ES-B1
D633	8-719-911-19	DIODE 1SS119
D801	8-719-924-06	DIODE ERC24-06S
D802	8-719-924-06	DIODE ERC24-06S
D803	8-719-300-65	DIODE ES1F
D804	8-719-911-55	DIODE U05G
D805	8-719-911-55	DIODE U05G
D806	8-719-945-80	DIODE ERC06-15S
D808	8-719-928-08	DIODE ERD28-08S
D809	8-719-924-06	DIODE ERC24-06S
<u>IC</u>		
IC001	8-759-630-06	IC M50436-614SP
IC002	8-759-970-37	IC MB88503H-565G
IC003	8-759-603-41	IC M58655P
IC004	8-759-157-40	IC UPC574J
IC251	8-759-803-31	IC LA4280
*4-368-683-01	SPRING; IC251	
IC401	8-752-006-10	IC CX20061
IC501	8-759-942-15	IC TEA2028A
IC502	8-759-944-57	IC TDA8170
IC601	8-759-946-23	IC TEA2164
*4-386-642-01	HEAT SINK, IC; IC601	

Remark	Ref.No.	Part No.	Description	Remark
			<u>COIL</u>	
	L001	1-410-475-21	MICRO INDUCTOR 27UH	
	L501	1-408-225-00	MICRO INDUCTOR 3.3UH	
	L601	*1-420-872-00	COIL, AIR CORE	
	L602	1-410-396-41	FERRITE BEAD INDUCTOR	
	L603	1-410-396-41	FERRITE BEAD INDUCTOR	
	L605	1-459-442-00	COIL (WITH CORE)	
	L606	1-421-013-00	COIL, (HOLIZONTAL CHOKE) 25UH	
	L607	1-410-482-31	MICRO INDUCTOR 100UH	
	L803	1-459-104-00	COIL, DUST CORE	
	L804	1-408-239-00	MICRO INDUCTOR 4.7MMH	
	L805	1-459-652-11	HLC	
	L806	1-459-115-00	COIL, DCC-H	
	L807	1-408-242-00	MICRO INDUCTOR 10MMH	
	L809	*1-420-872-00	COIL, AIR CORE	
	L810	1-459-390-00	COIL (WITH CORE)	
			<u>IC LINK</u>	
	PS601A	1-532-984-91	LINK, IC	
	PS602A	1-532-675-91	LINK, IC	
			<u>TRANSISTOR</u>	
	Q001	8-729-178-54	TRANSISTOR 2SC2785	
	Q002	8-729-117-54	TRANSISTOR 2SA1175	
	Q003	8-729-117-54	TRANSISTOR 2SA1175	
	Q004	8-729-117-54	TRANSISTOR 2SA1175	
	Q252	8-729-900-36	TRANSISTOR DTC124ES	
	Q501	8-729-117-54	TRANSISTOR 2SA1175	
	Q502	8-729-117-54	TRANSISTOR 2SA1175	
	Q503	8-729-178-54	TRANSISTOR 2SC2785	
	Q505	8-729-177-43	TRANSISTOR 2SD774	
	Q506	8-729-103-43	TRANSISTOR 2SB734	
	Q507	8-729-117-54	TRANSISTOR 2SA1175	
	Q591	8-729-178-54	TRANSISTOR 2SC2785	
	Q598	8-729-178-54	TRANSISTOR 2SC2785	
	Q601	8-729-904-32	TRANSISTOR 2SB1185-E	
	Q602	8-729-209-02	TRANSISTOR 2SD1548-LB	
	*4-368-683-01	SPRING; Q602		
	Q603	8-729-904-32	TRANSISTOR 2SB1185-E	
	Q604	8-729-378-91	TRANSISTOR 2SD789	
	Q605	8-729-178-54	TRANSISTOR 2SC2785	
	Q606	8-729-178-54	TRANSISTOR 2SC2785	
	Q607	8-729-904-27	TRANSISTOR 2SD1761-E	
	Q608	8-729-904-27	TRANSISTOR 2SD1761-E	
	*4-368-683-01	SPRING; Q608		
	Q609	8-729-378-91	TRANSISTOR 2SD789	
	Q801	8-729-178-54	TRANSISTOR 2SC2785	
	Q804	8-729-304-50	TRANSISTOR 2SD1941-06	
	*4-368-683-01	SPRING; Q804		
	Q805	8-729-168-82	TRANSISTOR 2SC2688	

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D

Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
<u>RESISTOR</u>							
R001	1-249-417-11	CARBON	1K 5% 1/4W	R061	1-249-417-11	CARBON	1K 5% 1/4W
R002	1-249-417-11	CARBON	1K 5% 1/4W	R062	1-249-411-11	CARBON	330 5% 1/4W
R003	1-249-417-11	CARBON	1K 5% 1/4W	R063	1-249-431-11	CARBON	15K 5% 1/4W
R004	1-249-417-11	CARBON	1K 5% 1/4W	R064	1-249-429-11	CARBON	10K 5% 1/4W
R005	1-249-411-11	CARBON	330 5% 1/4W	R067	1-249-413-11	CARBON	470 5% 1/4W
R006	1-249-417-11	CARBON	1K 5% 1/4W	R068	1-249-421-11	CARBON	2.2K 5% 1/4W
R007	1-249-405-11	CARBON	100 5% 1/4W	R069	1-249-423-11	CARBON	3.3K 5% 1/4W
R008	1-249-417-11	CARBON	1K 5% 1/4W	R070	1-249-417-11	CARBON	1K 5% 1/4W
R009	1-249-417-11	CARBON	1K 5% 1/4W	R071	1-249-417-11	CARBON	1K 5% 1/4W
R010	1-249-413-11	CARBON	470 5% 1/4W	R072	1-249-417-11	CARBON	1K 5% 1/4W
R011	1-249-417-11	CARBON	1K 5% 1/4W	R073	1-249-417-11	CARBON	1K 5% 1/4W
R012	1-249-417-11	CARBON	1K 5% 1/4W	R074	1-249-417-11	CARBON	1K 5% 1/4W
R013	1-249-417-11	CARBON	1K 5% 1/4W	R077	1-249-413-11	CARBON	470 5% 1/4W
R014	1-249-417-11	CARBON	1K 5% 1/4W	R078	1-249-423-11	CARBON	3.3K 5% 1/4W
R016	1-249-429-11	CARBON	10K 5% 1/4W	R079	1-249-435-11	CARBON	33K 5% 1/4W
R017	1-249-417-11	CARBON	1K 5% 1/4W	R080	1-249-429-11	CARBON	10K 5% 1/4W
R018	1-249-417-11	CARBON	1K 5% 1/4W	R081	1-249-441-11	CARBON	100K 5% 1/4W
R019	1-249-433-11	CARBON	22K 5% 1/4W	R083	1-249-429-11	CARBON	10K 5% 1/4W
R020	1-249-433-11	CARBON	22K 5% 1/4W	R084	1-249-413-11	CARBON	470 5% 1/4W
R021	1-249-433-11	CARBON	22K 5% 1/4W	R085	1-249-429-11	CARBON	10K 5% 1/4W
R022	1-249-433-11	CARBON	22K 5% 1/4W	R086	1-249-417-11	CARBON	1K 5% 1/4W
R023	1-249-429-11	CARBON	10K 5% 1/4W	R087	1-249-417-11	CARBON	1K 5% 1/4W
R024	1-249-429-11	CARBON	10K 5% 1/4W	R088	1-249-425-11	CARBON	4.7K 5% 1/4W
R025	1-249-417-11	CARBON	1K 5% 1/4W	R090	1-249-413-11	CARBON	470 5% 1/4W
R030	1-249-425-11	CARBON	4.7K 5% 1/4W	R091	1-249-409-11	CARBON	220 5% 1/4W
R031	1-249-429-11	CARBON	10K 5% 1/4W	R093	1-249-429-11	CARBON	10K 5% 1/4W
R032	1-249-417-11	CARBON	1K 5% 1/4W	R094	1-249-429-11	CARBON	10K 5% 1/4W
R033	1-249-413-11	CARBON	470 5% 1/4W	R095	1-249-409-11	CARBON	220 5% 1/4W
R034	1-249-413-11	CARBON	470 5% 1/4W	R096	1-249-409-11	CARBON	220 5% 1/4W
R035	1-249-431-11	CARBON	15K 5% 1/4W	R097	1-249-429-11	CARBON	10K 5% 1/4W
R036	1-249-421-11	CARBON	2.2K 5% 1/4W	R098	1-249-429-11	CARBON	10K 5% 1/4W
R037	1-249-417-11	CARBON	1K 5% 1/4W	R099	1-215-900-11	METAL OXIDE	22K 5% 2W F
R038	1-249-417-11	CARBON	1K 5% 1/4W	R251	1-249-417-11	CARBON	1K 5% 1/4W
R039	1-249-417-11	CARBON	1K 5% 1/4W	R252	1-249-413-11	CARBON	470 5% 1/4W
R040	1-249-417-11	CARBON	1K 5% 1/4W	R253	1-249-413-11	CARBON	470 5% 1/4W
R041	1-249-417-11	CARBON	1K 5% 1/4W	R255	1-249-385-11	CARBON	2.2 5% 1/4W F
R042	1-249-417-11	CARBON	1K 5% 1/4W	R256	1-249-385-11	CARBON	2.2 5% 1/4W F
R043	1-249-417-11	CARBON	1K 5% 1/4W	R260	1-249-393-11	CARBON	10 5% 1/4W
R044	1-249-429-11	CARBON	10K 5% 1/4W	R261	1-249-429-11	CARBON	10K 5% 1/4W
R045	1-249-417-11	CARBON	1K 5% 1/4W	R262	1-249-413-11	CARBON	470 5% 1/4W
R046	1-249-429-11	CARBON	10K 5% 1/4W	R263	1-249-421-11	CARBON	2.2K 5% 1/4W
R048	1-249-417-11	CARBON	1K 5% 1/4W	R264	1-249-421-11	CARBON	2.2K 5% 1/4W
R049	1-249-417-11	CARBON	1K 5% 1/4W	R265	1-249-425-11	CARBON	4.7K 5% 1/4W
R050	1-249-433-11	CARBON	22K 5% 1/4W	R266	1-249-425-11	CARBON	4.7K 5% 1/4W
R051	1-249-429-11	CARBON	10K 5% 1/4W	R401	1-249-434-11	CARBON	27K 5% 1/4W
R052	1-249-439-11	CARBON	68K 5% 1/4W	R402	1-249-435-11	CARBON	33K 5% 1/4W
R053	1-249-437-11	CARBON	47K 5% 1/4W	R410	1-249-413-11	CARBON	470 5% 1/4W
R054	1-249-417-11	CARBON	1K 5% 1/4W	R411	1-249-413-11	CARBON	470 5% 1/4W
R055	1-249-433-11	CARBON	22K 5% 1/4W	R412	1-249-413-11	CARBON	470 5% 1/4W
R057	1-249-409-11	CARBON	220 5% 1/4W	R500	1-215-487-00	CARBON	560K 5% 1/4W
R058	1-249-409-11	CARBON	220 5% 1/4W	R501	1-249-413-11	CARBON	470 5% 1/4W
				R502	1-249-409-11	CARBON	220 5% 1/4W
				R503	1-249-410-11	CARBON	270 5% 1/4W

KV-21XSD/21XSTD

RM-673

D

Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
R504	1-215-427-00	METAL	1.8K 1% 1/6W	R559	1-249-427-11	CARBON	6.8K 5% 1/4W
R505	1-249-431-11	CARBON	15K 5% 1/4W	R560	1-249-411-11	CARBON	330 5% 1/4W
R506	1-249-428-11	CARBON	8.2K 5% 1/4W	R591	1-249-427-11	CARBON	6.8K 5% 1/4W
R507	1-247-891-00	CARBON	330K 5% 1/4W	R592	1-249-429-11	CARBON	10K 5% 1/4W
R508	1-247-849-00	CARBON	5.6K 5% 1/4W	R593	1-249-429-11	CARBON	10K 5% 1/4W
R509	1-249-424-11	CARBON	3.9K 5% 1/4W	R594	1-249-424-11	CARBON	3.9K 5% 1/4W
R510	1-247-849-00	CARBON	5.6K 5% 1/4W	R595	1-249-417-11	CARBON	1K 5% 1/4W
R511	1-249-429-11	CARBON	10K 5% 1/4W	R596	1-249-425-11	CARBON	4.7K 5% 1/4W
R512	1-247-891-00	CARBON	330K 5% 1/4W	R597	1-249-425-11	CARBON	4.7K 5% 1/4W
R513	1-249-429-11	CARBON	10K 5% 1/4W	R598	1-249-405-11	CARBON	100 5% 1/4W
R514	1-249-409-11	CARBON	220 5% 1/4W	R599	1-249-405-11	CARBON	100 5% 1/4W
R515	1-249-423-11	CARBON	3.3K 5% 1/4W	R602	1-215-901-00	METAL OXIDE	33K 5% 2W F
R516	1-249-408-11	CARBON	180 5% 1/4W	R603	1-216-359-00	METAL OXIDE	6.8 5% 1W F
R517	1-249-429-11	CARBON	10K 5% 1/4W	R604	1-249-414-11	CARBON	560 5% 1/4W
R518	1-249-437-11	CARBON	47K 5% 1/4W	R605	1-215-469-00	METAL	100K 1% 1/6W
R519	1-249-433-11	CARBON	22K 5% 1/4W	R606	1-215-440-00	CARBON	6.2K 5% 1/4W
R520	1-249-411-11	CARBON	330 5% 1/4W	R607	1-249-434-11	CARBON	27K 5% 1/4W
R521	1-249-405-11	CARBON	100 5% 1/4W	R608	1-215-901-00	METAL OXIDE	33K 5% 2W F
R522	1-215-469-00	METAL	100K 1% 1/6W	R609	1-249-401-11	CARBON	47 5% 1/4W
R523	1-249-417-11	CARBON	1K 5% 1/4W	R610	1-249-385-11	CARBON	2.2 5% 1/4W F
R524	1-249-421-11	CARBON	2.2K 5% 1/4W	R611	1-249-385-11	CARBON	2.2 5% 1/4W F
R525	1-249-417-11	CARBON	1K 5% 1/4W	R612	1-217-193-00	WIREWOUND	0.27 10% 2W F
R526	1-249-409-11	CARBON	220 5% 1/4W F	R613	1-249-401-11	CARBON	47 5% 1/4W
R527	1-249-431-11	CARBON	15K 5% 1/4W	R614	1-205-919-11	CEMENTED	220 10% 10W F
R528	1-249-408-11	CARBON	180 5% 1/4W	R616	1-249-417-11	CARBON	1K 5% 1/4W
R529	1-249-427-11	CARBON	6.8K 5% 1/4W	R617	1-249-411-11	CARBON	330 5% 1/4W
R530	1-249-448-11	CARBON	1.2 5% 1/4W F	R618	1-218-022-51	METAL OXIDE	560 5% 1W
R533	1-249-408-11	CARBON	180 5% 1/4W	R619	1-249-429-11	CARBON	10K 5% 1/4W
R534	1-215-491-00	CARBON	820K 5% 1/4W	R620	1-249-433-11	CARBON	22K 5% 1/4W
R535	1-249-753-85	CARBON	4.7M 5% 1/4W	R621	1-249-431-11	CARBON	15K 5% 1/4W
R536	1-249-749-00	CARBON	2.2M 5% 1/4W	R622	1-249-429-11	CARBON	10K 5% 1/4W
R537	1-249-434-11	CARBON	27K 5% 1/4W	R623	1-249-377-11	CARBON	0.47 5% 1/4W F
R538	1-215-479-00	CARBON	270K 5% 1/4W	R624	1-249-411-11	CARBON	330 5% 1/4W
R539	1-247-883-00	CARBON	150K 5% 1/4W	R625	1-218-017-51	METAL OXIDE	220 5% 1W
R540	1-249-399-11	CARBON	33 5% 1/4W	R626	1-249-411-11	CARBON	330 5% 1/4W
R541	1-249-438-11	CARBON	56K 5% 1/4W	R627	1-218-019-51	METAL OXIDE	330 5% 1W
R542	1-249-425-11	CARBON	4.7K 5% 1/4W	R628	1-249-393-11	CARBON	10 5% 1/4W
R543	1-215-088-00	METAL	2.2 5% 1/4W	R629	1-249-411-11	CARBON	330 5% 1/4W
R544	1-247-745-11	CARBON	330 5% 1/2W	R630	1-249-437-11	CARBON	47K 5% 1/4W
R545	1-247-869-00	CARBON	39K 5% 1/4W	R633	1-249-405-11	CARBON	100 5% 1/4W
R546	1-249-434-11	CARBON	27K 5% 1/4W	R634	1-218-020-51	METAL OXIDE	390 5% 1W
R547	1-247-849-00	CARBON	5.6K 5% 1/4W	R635	1-249-429-11	CARBON	10K 5% 1/4W
R548	1-216-350-11	METAL OXIDE	1.2 5% 1W F	R636	1-249-429-11	CARBON	10K 5% 1/4W
R549	1-215-890-11	METAL OXIDE	470 5% 2W F	R642	1-216-343-00	METAL OXIDE	0.33 5% 1W F
R550	1-249-440-11	CARBON	82K 5% 1/4W	R643	1-217-192-21	WIREWOUND	0.22 10% 2W F
R551	1-249-749-00	CARBON	2.2M 5% 1/4W	R647	1-216-485-11	METAL OXIDE	5.6K 5% 3W F
R552	1-218-026-51	METAL OXIDE	1.2K 5% 1W	R648	1-216-485-11	METAL OXIDE	5.6K 5% 3W F
R553	1-218-025-51	METAL OXIDE	1K 5% 1W	R650	1-249-417-11	CARBON	1K 5% 1/4W
R554	1-249-411-11	CARBON	330 5% 1/4W	R651	1-249-405-11	CARBON	100 5% 1/4W
R555	1-249-749-00	CARBON	2.2M 5% 1/4W	R652	1-215-493-00	CARBON	1M 5% 1/4W
R556	1-249-405-11	CARBON	100 5% 1/4W	R802	1-249-443-11	CARBON	0.47 5% 1/4W F
R557	1-249-425-11	CARBON	4.7K 5% 1/4W	R805	1-249-448-11	CARBON	1.2 5% 1/4W F
R558	1-247-895-00	CARBON	470K 5% 1/4W	R806	1-249-439-11	CARBON	68K 5% 1/4W

D	V
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Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
R807	1-218-025-51	METAL OXIDE	1K 5% 1W	C12	1-102-980-00	CERAMIC	270PF 5% 50V
R809	1-202-821-11	SOLID	1.8K 10% 1/2W	C13	1-102-973-00	CERAMIC	100PF 5% 50V
R810	1-202-818-00	SOLID	1K 1/2W	C14	1-102-951-00	CERAMIC	15PF 5% 50V
R811	1-218-013-51	METAL OXIDE	100 5% 1W	C15	1-102-961-00	CERAMIC	27PF 5% 50V
R812	1-244-917-00	CARBON	68K 5% 1/2W	C16	1-110-190-81	MYLAR	0.01MF 10% 400V
R815	1-215-884-11	METAL OXIDE	47 5% 2W F	C17	1-110-171-81	MYLAR	0.047MF 10% 100V
R816	1-218-023-51	METAL OXIDE	680 5% 1W	C18	1-102-953-00	CERAMIC	18PF 5% 50V
R817	1-249-417-11	CARBON	1K 5% 1/4W	C19	1-110-171-81	MYLAR	0.047MF 10% 100V
R820	1-249-403-11	CARBON	68 5% 1/4W	C20	1-102-978-00	CERAMIC	220PF 5% 50V
R821	1-247-725-11	CARBON	10K 5% 1/4W F	C21	1-110-173-81	MYLAR	0.068MF 10% 100V
R822	1-217-778-11	FUSIBLE	1K 5% 1W F	C24	1-126-101-11	ELECT	100MF 20% 16V
R825	1-216-349-00	METAL OXIDE	1 5% 1W F	C25	1-124-477-11	ELECT	47MF 20% 16V
R826	1-249-441-11	CARBON	100K 5% 1/4W	C27	1-102-820-00	CERAMIC	330PF 5% 50V
R827	1-249-429-11	CARBON	10K 5% 1/4W	C28	1-102-116-00	CERAMIC	680PF 10% 50V
R828	1-249-423-11	CARBON	3.3K 5% 1/4W	C29	1-124-927-11	ELECT	4.7MF 20% 50V
R829	1-249-418-11	CARBON	1.2K 5% 1/4W	C51	1-110-175-81	MYLAR	0.1MF 10% 100V
R830	1-249-429-11	CARBON	10K 5% 1/4W	C52	1-110-175-81	MYLAR	0.1MF 10% 100V
R1001	1-249-421-11	CARBON	2.2K 5% 1/4W	C53	1-110-175-81	MYLAR	0.1MF 10% 100V
R5501	1-249-429-11	CARBON	10K 5% 1/4W	C54	1-110-175-81	MYLAR	0.1MF 10% 100V
R5502	1-249-417-11	CARBON	1K 5% 1/4W	C55	1-110-175-81	MYLAR	0.1MF 10% 100V
R5503	1-249-389-11	CARBON	4.7 5% 1/4W	C56	1-110-175-81	MYLAR	0.1MF 10% 100V
R5504	1-215-493-00	CARBON	1M 5% 1/4W	C57	1-102-074-00	CERAMIC	0.001MF 10% 50V
VARIABLE RESISTOR				C58	1-102-074-00	CERAMIC	0.001MF 10% 50V
RV501	1-228-991-00	RES, ADJ, CARBON 2.2K		C59	1-102-074-00	CERAMIC	0.001MF 10% 50V
RV502	1-230-630-11	RES, ADJ, CARBON 10K		FILM			
RV601	1-228-990-00	RES, ADJ, CARBON 1K		CP01	1-235-977-11	NETWORK, RES, THICK FILM	
SPARK GAP				CP02	1-235-977-11	NETWORK, RES, THICK FILM	
SG801	1-519-063-XX	DISCHARGING GAP		TRIMMER			
TRANSFORMER				CT01	1-141-181-11	CAP, TRIMMER	
T601	1-448-961-11	S.R.T		DIODE			
T602	1-424-011-11	TRANSFORMER, PULSE		D01	8-719-109-89	DIODE RD5.6ES-B2	
T801	1-437-090-00	HDT		D02	8-719-110-36	DIODE RD13ES-B2	
*****				D03	8-719-911-19	DIODE 1SS119	
*****				D04	8-719-109-69	DIODE RD3.6ES-B2	
*****				D07	8-719-109-97	DIODE RD6.8ES-B1	
*****				D08	8-719-109-97	DIODE RD6.8ES-B1	
*****				IC			
*****				IC01	8-759-942-54	IC MAB8461P-W083	
*****				IC02	8-759-944-59	IC SAA5231	
*****				IC03	8-759-946-85	IC SAA5243E	
*****				IC04	8-759-113-01	IC UPD4364CX-15L	
*****				COIL			
C01	1-126-101-11	ELECT	100MF 20% 16V	L01	1-408-411-00	MICRO INDUCTOR 15UH	
C02	1-124-120-11	ELECT	220MF 20% 16V	L02	1-410-468-11	MICRO INDUCTOR 6.8UH	
C03	1-124-119-00	ELECT	330MF 20% 16V	L03	1-410-468-11	MICRO INDUCTOR 6.8UH	
C04	1-124-477-11	ELECT	47MF 20% 16V	L04	1-410-468-11	MICRO INDUCTOR 6.8UH	
C05	1-126-101-11	ELECT	100MF 20% 16V	L05	1-410-468-11	MICRO INDUCTOR 6.8UH	
C06	1-124-120-11	ELECT	220MF 20% 16V				
C07	1-124-499-11	ELECT	1MF 20% 50V				
C08	1-102-951-00	CERAMIC	15PF 5% 50V				
C09	1-102-074-00	CERAMIC	0.001MF 10% 50V				
C10	1-102-824-00	CERAMIC	470PF 5% 50V				
C11	1-110-182-81	MYLAR	0.022MF 10% 250V				

V	J1
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Ref.No.	Part No.	Description
L06	1-410-468-11	MICRO INDUCTOR 6.8UH

TRANSISTOR

Q01	8-729-904-27	TRANSISTOR 2SD1761-E
Q02	8-729-177-43	TRANSISTOR 2SD774
Q03	8-729-900-80	TRANSISTOR DTC114ES
Q04	8-729-178-54	TRANSISTOR 2SC2785
Q05	8-729-177-43	TRANSISTOR 2SD774
Q06	8-729-178-54	TRANSISTOR 2SC2785
Q07	8-729-178-54	TRANSISTOR 2SC2785
Q09	8-729-117-54	TRANSISTOR 2SA1175
Q10	8-729-117-54	TRANSISTOR 2SA1175
Q11	8-729-117-54	TRANSISTOR 2SA1175

RESISTOR

R01	1-218-021-51	METAL OXIDE	470	5%	1W
R02	1-249-425-11	CARBON	4.7K	5%	1/4W
R04	1-218-021-51	METAL OXIDE	470	5%	1W
R05	1-215-128-00	METAL	100	5%	1/4W
R06	1-249-417-11	CARBON	1K	5%	1/4W
R07	1-249-405-11	CARBON	100	5%	1/4W
R08	1-249-411-11	CARBON	330	5%	1/4W
R09	1-249-438-11	CARBON	56K	5%	1/4W
R13	1-249-405-11	CARBON	100	5%	1/4W
R14	1-249-405-11	CARBON	100	5%	1/4W
R15	1-215-493-00	CARBON	1M	5%	1/4W
R16	1-249-420-11	CARBON	1.8K	5%	1/4W
R17	1-249-417-11	CARBON	1K	5%	1/4W
R18	1-249-425-11	CARBON	4.7K	5%	1/4W
R19	1-249-411-11	CARBON	330	5%	1/4W
R20	1-215-146-00	METAL	560	5%	1/4W
R27	1-249-399-11	CARBON	33	5%	1/4W
R28	1-249-399-11	CARBON	33	5%	1/4W
R29	1-249-399-11	CARBON	33	5%	1/4W
R30	1-215-130-00	METAL	120	5%	1/4W
R31	1-215-130-00	METAL	120	5%	1/4W
R32	1-215-130-00	METAL	120	5%	1/4W
R33	1-249-404-00	CARBON	82	5%	1/4W
R34	1-249-417-11	CARBON	1K	5%	1/4W
R37	1-249-405-11	CARBON	100	5%	1/4W
R38	1-249-416-11	CARBON	820	5%	1/4W
R40	1-249-425-11	CARBON	4.7K	5%	1/4W
R41	1-249-413-11	CARBON	470	5%	1/4W
R43	1-249-425-11	CARBON	4.7K	5%	1/4W
R44	1-249-413-11	CARBON	470	5%	1/4W
R45	1-215-152-00	METAL	1K	5%	1/4W
R46	1-247-779-00	CARBON	6.8	5%	1/6W

VARIABLE RESISTOR

RV01	1-230-624-51	RES, ADJ, CARBON 220
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Ref.No.	Part No.	Description	Remark
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CONNECTOR

V1	*1-560-123-00	PLUG, CONNECTOR (2.5MM) 3P	
V2	*1-560-125-00	PLUG, CONNECTOR (2.5MM) 5P	
V3	*1-560-126-00	PLUG, CONNECTOR (2.5MM) 6P	
V4	*1-560-123-00	PLUG, CONNECTOR (2.5MM PITCH)	
V5	*1-560-290-00	PLUG, CONNECTOR (2.5MM PITCH)	
V6	*1-508-784-00	1P PLUG	

CRYSTAL

X01	1-567-162-00	OSCILLATOR, CRYSTAL	
X02	1-567-495-11	OSCILLATOR, CRYSTAL	
X03	1-567-686-11	OSCILLATOR, CERAMIC	

*A-1371-335-A	J1 BOARD, COMPLETE

CAPACITOR

C1407	1-124-477-11	ELECT	47MF	20%	16V
C1415	1-124-902-00	ELECT	0.47MF	20%	50V
C1416	1-124-902-00	ELECT	0.47MF	20%	50V
C1418	1-102-112-00	CERAMIC	330PF	10%	50V
C1419	1-102-112-00	CERAMIC	330PF	10%	50V
C1423	1-108-425-00	MYLAR	0.0022MF	10%	250V
C1424	1-108-425-00	MYLAR	0.0022MF	10%	250V
C1427	1-101-003-00	CERAMIC	0.0047MF		50V
C1428	1-101-003-00	CERAMIC	0.0047MF		50V
C1431	1-124-655-11	ELECT	0.47MF	20%	50V
C1432	1-124-902-00	ELECT	0.47MF	20%	50V
C1433	1-126-101-11	ELECT	100MF	20%	16V
C1501	1-123-875-11	ELECT	10MF	20%	50V
C1502	1-123-875-11	ELECT	10MF	20%	50V
C1503	1-108-614-91	MYLAR	0.001MF	10%	100V
C1504	1-124-910-11	ELECT	47MF	20%	50V
C1505	1-110-171-81	MYLAR	0.047MF	10%	100V
C1507	1-108-620-91	MYLAR	0.0033MF	10%	100V
C1508	1-123-875-11	ELECT	10MF	20%	50V
C1509	1-124-499-11	ELECT	1MF	20%	50V
C1511	1-123-875-11	ELECT	10MF	20%	50V
C1512	1-110-188-81	MYLAR	0.0068MF	10%	400V
C1513	1-102-963-00	CERAMIC	33PF	5%	50V

CONNECTOR

CN1401	1-537-088-11	TERMINAL BOARD, INPUT/OUTPUT
CN1402	1-561-534-41	SOCKET 21P
CNJ41	*1-566-641-11	CONNECTOR, HINGE (TAB) 18P
CNJ43	*1-564-893-11	PLUG, CONNECTOR 4P
CNJ51	*1-566-641-11	CONNECTOR, HINGE (TAB) 18P
CNJ67	*1-560-721-21	PLUG, CONNECTOR 2P
CNJ142	*1-564-893-11	PLUG, CONNECTOR 4P

DIODE

D1407	8-719-110-18	DIODE RD10ES-B3
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J1

J2

H1

Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
D1409	8-719-110-14	DIODE RD9.1ES-B3		VARIABLE RESISTOR			
D1410	8-719-110-14	DIODE RD9.1ES-B3		RV1501	1-228-999-00	RES, ADJ, CARBON 470K	
D1419	8-719-110-04	DIODE RD7.5ES-B3		RV1502	1-228-994-00	RES, ADJ, CARBON 10K	
D1501	8-719-911-19	DIODE 1SS119		RV1503	1-228-995-00	RES, ADJ, CARBON 22K	
D1502	8-719-911-19	DIODE 1SS119		RV1504	1-228-990-00	RES, ADJ, CARBON 1K	
D1503	8-719-911-19	DIODE 1SS119		RV1505	1-228-999-00	RES, ADJ, CARBON 470K	
D1504	8-719-911-19	DIODE 1SS119		RV1506	1-228-995-00	RES, ADJ, CARBON 22K	
D1505	8-719-000-12	DIODE MC931		RV1507	1-230-504-11	RES, ADJ, CARBON 220	
IC				RV1508	1-228-994-00	RES, ADJ, CARBON 10K	
IC1402	8-759-946-32	IC TEA2014A		RV1509	1-228-999-00	RES, ADJ, CARBON 470K	
IC1501	8-759-942-16	IC TEA2031A		*****			
COIL				*1-622-448-11	J2 BOARD	*****	
L1401	1-459-407-00	COIL, FERRITE CHOKE		CAPACITOR			
L1402	1-459-407-00	COIL, FERRITE CHOKE		C1401	1-126-105-11	ELECT 1000MF 20% 35V	
RESISTOR				C1402	1-126-105-11	ELECT 1000MF 20% 35V	
R1417	1-249-404-00	CARBON 82 5% 1/4W		CONNECTOR			
R1423	1-247-849-00	CARBON 5.6K 5% 1/4W		CNJ23	*1-564-893-11	PLUG, CONNECTOR 4P	
R1424	1-247-849-00	CARBON 5.6K 5% 1/4W		CNJ242	*1-564-893-11	PLUG, CONNECTOR 4P	
R1428	1-247-895-00	CARBON 470K 5% 1/4W		JACK			
R1429	1-247-895-00	CARBON 470K 5% 1/4W		J1401	1-507-806-00	JACK	
R1430	1-249-404-00	CARBON 82 5% 1/4W		RESISTOR			
R1433	1-249-409-11	CARBON 220 5% 1/4W		R1401	1-215-144-00	METAL 470 5% 1/4W	
R1434	1-249-393-11	CARBON 10 5% 1/4W	F	R1402	1-215-144-00	METAL 470 5% 1/4W	
R1437	1-249-429-11	CARBON 10K 5% 1/4W		*****			
R1440	1-249-416-11	CARBON 820 5% 1/4W		*1-622-450-11	H1 BOARD	*****	
R1441	1-249-416-11	CARBON 820 5% 1/4W		CONNECTOR			
R1442	1-249-437-11	CARBON 47K 5% 1/4W		CNH01	*1-564-896-11	PLUG, CONNECTOR 7P	
R1443	1-249-437-11	CARBON 47K 5% 1/4W		CNH02	*1-564-898-11	PLUG, CONNECTOR 9P	
R1449	1-249-405-11	CARBON 100 5% 1/4W		DIODE			
R1450	1-249-413-11	CARBON 470 5% 1/4W		D1401	8-719-311-23	DIODE SEL112NP-N	
R1451	1-249-413-11	CARBON 470 5% 1/4W		*2-261-216-00	HOLDER (S), LED; D1401		
R1501	1-249-433-11	CARBON 22K 5% 1/4W		D1402	8-719-311-23	DIODE SEL112NP-N	
R1502	1-249-434-11	CARBON 27K 5% 1/4W		*2-261-216-00	HOLDER (S), LED; D1402		
R1503	1-247-895-00	CARBON 470K 5% 1/4W		D1403	8-719-311-23	DIODE SEL112NP-N	
R1504	1-249-435-11	CARBON 33K 5% 1/4W		*2-261-216-00	HOLDER (S), LED; D1403		
R1505	1-249-433-11	CARBON 22K 5% 1/4W		D1404	8-719-311-23	DIODE SEL112NP-N	
R1506	1-247-895-00	CARBON 470K 5% 1/4W		*2-261-216-00	HOLDER (S), LED; D1404		
R1509	1-247-887-00	CARBON 220K 5% 1/4W		D1405	8-719-812-41	DIODE TLR124	
R1510	1-247-849-00	CARBON 5.6K 5% 1/4W		4-359-103-00	HOLDER, LED; D1405		
R1511	1-249-417-11	CARBON 1K 5% 1/4W					
R1512	1-249-429-11	CARBON 10K 5% 1/4W					
R1513	1-249-438-11	CARBON 56K 5% 1/4W					
R1514	1-249-417-11	CARBON 1K 5% 1/4W					
R1516	1-249-432-11	CARBON 18K 5% 1/4W					
R1517	1-249-411-11	CARBON 330 5% 1/4W					
R1518	1-249-429-11	CARBON 10K 5% 1/4W					
R1519	1-247-883-00	CARBON 150K 5% 1/4W					
R1520	1-247-895-00	CARBON 470K 5% 1/4W					
R1556	1-247-849-00	CARBON 5.6K 5% 1/4W					

H1 KS

Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
<u>IC</u>				<u>IC</u>			
IC1401	8-741-138-70	IC BX-1387		IC201	8-759-013-17	IC TDA6200	
<u>RESISTOR</u>				<u>RESISTOR</u>			
R1491	1-249-414-11	CARBON 560 5% 1/4W		R204	1-249-435-11	CARBON 33K 5% 1/4W	
<u>SWITCH</u>				R205	1-249-435-11	CARBON 33K 5% 1/4W	
S1401	1-571-085-21	SWITCH, TACTICLE		R206	1-249-423-11	CARBON 3.3K 5% 1/4W	
S1402	1-571-085-21	SWITCH, TACTICLE		R207	1-249-423-11	CARBON 3.3K 5% 1/4W	
S1403	1-571-085-21	SWITCH, TACTICLE		R208	1-249-431-11	CARBON 15K 5% 1/4W	
S1404	1-571-085-21	SWITCH, TACTICLE		R209	1-249-433-11	CARBON 22K 5% 1/4W	
S1405	1-571-085-21	SWITCH, TACTICLE		R210	1-249-431-11	CARBON 15K 5% 1/4W	
S1406	1-571-085-21	SWITCH, TACTICLE		R211	1-249-441-11	CARBON 100K 5% 1/4W	
S1408	1-571-085-21	SWITCH, TACTICLE		R212	1-249-433-11	CARBON 22K 5% 1/4W	
S1409	1-571-085-21	SWITCH, TACTICLE		R213	1-249-431-11	CARBON 15K 5% 1/4W	
S1410	1-571-085-21	SWITCH, TACTICLE		R214	1-249-417-11	CARBON 1K 5% 1/4W	
S1411	1-571-085-21	SWITCH, TACTICLE		R215	1-249-433-11	CARBON 22K 5% 1/4W	
S1412	1-571-085-21	SWITCH, TACTICLE		R216	1-249-433-11	CARBON 22K 5% 1/4W	
S1414	1-571-085-21	SWITCH, TACTICLE		R217	1-249-431-11	CARBON 15K 5% 1/4W	
*****				R218	1-249-417-11	CARBON 1K 5% 1/4W	
*1-622-449-11	KS BOARD			R219	1-249-429-11	CARBON 10K 5% 1/4W	
	*****			R221	1-249-417-11	CARBON 1K 5% 1/4W	
<u>CAPACITOR</u>				R222	1-249-417-11	CARBON 1K 5% 1/4W	
C202	1-124-902-00	ELECT 0.47MF 20% 50V		R225	1-249-417-11	CARBON 1K 5% 1/4W	
C204	1-124-902-00	ELECT 0.47MF 20% 50V		R226	1-249-417-11	CARBON 1K 5% 1/4W	
C213	1-124-908-11	ELECT 22MF 20% 50V		R227	1-249-417-11	CARBON 1K 5% 1/4W	
C214	1-110-188-81	MYLAR 0.0068MF 10% 400V		R228	1-249-417-11	CARBON 1K 5% 1/4W	
C217	1-110-188-81	MYLAR 0.0068MF 10% 400V		*****			
C218	1-110-182-81	MYLAR 0.022MF 10% 250V		<u>MISCELLANEOUS</u>			
C219	1-110-182-81	MYLAR 0.022MF 10% 250V		*****			
C220	1-108-620-91	MYLAR 0.0033MF 10% 100V		A.1-451-295-41 DEFLECTION YOKE (SY-153E)			
C221	1-108-620-91	MYLAR 0.0033MF 10% 100V		1-452-032-00 MAGNET, DISK; 10MM ϕ			
C222	1-110-182-81	MYLAR 0.022MF 10% 250V		1-452-094-00 MAGNET, ROTATABLE DISK; 15MM ϕ			
C223	1-110-182-81	MYLAR 0.022MF 10% 250V		1-452-277-00 MAGNET, BMC			
C224	1-110-190-81	MYLAR 0.01MF 10% 400V		1-503-642-21 SPEAKER			
C225	1-136-173-00	FILM 0.47MF 5% 50V		A.1-559-346-11 CORD, POWER (WITH CONNECTOR)			
C226	1-136-173-00	FILM 0.47MF 5% 50V		L901 A.1-426-326-11 COIL, DEMAGNETIZATION			
C227	1-110-182-81	MYLAR 0.022MF 10% 250V		T802 A.1-439-416-11 TRANSFORMER ASSY, FLYBACK			
C228	1-110-184-81	MYLAR 0.033MF 10% 250V		V901 A.8-738-753-05 PICTURE TUBE (A51JUH60X)			
C229	1-110-192-81	MYLAR 0.015MF 10% 400V		*****			
C230	1-110-192-81	MYLAR 0.015MF 10% 400V		<u>ACCESSORIES AND PACKING MATERIALS</u>			
C231	1-124-902-00	ELECT 0.47MF 20% 50V		*****			
C232	1-123-875-11	ELECT 10MF 20% 50V		<u>Part No.</u> <u>Description</u> <u>Remark</u>			
C233	1-102-114-00	CERAMIC 470PF 10% 50V		A-1470-808-A COMMANDER ASSY (RM-673)			
C234	1-102-114-00	CERAMIC 470PF 10% 50V		*4-377-015-01 BAG, PROTECTION			
C235	1-102-114-00	CERAMIC 470PF 10% 50V		*4-385-901-01 CUSHION (UPPER) (ASSY)			
C236	1-102-114-00	CERAMIC 470PF 10% 50V		*4-385-902-01 INDIVIDUAL CARTON			
C237	1-124-902-00	ELECT 0.47MF 20% 50V		*4-385-905-01 CUSHION (LOWER) (ASSY)			
C238	1-102-978-00	CERAMIC 220PF 5% 50V		4-482-424-61 MANUAL, INSTRUCTION			
C239	1-126-103-11	ELECT 470MF 20% 16V					
<u>CONNECTOR</u>							
CNK21	*1-562-370-21	CONNECTOR, BOARD TO BOARD 18P					
<u>DIODE</u>							
D205	8-719-110-04	DIODE RD7.5ES-B3					
D206	8-719-110-04	DIODE RD7.5ES-B3					

The components identified by shading and mark A are critical for safety. Replace only with part

The components identified by shading and mark Δ are critical for safety. Replace only with part number specified.